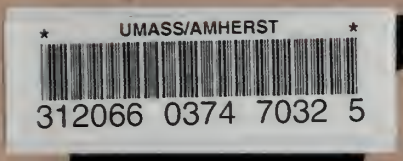

AIDS

ACQUIRED IMMUNE DEFICIENCY SYNDROME

Governor's Task Force on AIDS Policies and Recommendations

MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH

Governor's Task Force on AIDS Policies and Recommendations

Table of Contents

For more information contact:
The Office of Health Resources
(617) 727-0368

The Commonwealth of Massachusetts
Executive Office of Human Services
Department of Public Health
150 Tremont Street
Boston 02111

Bailus Walker, Jr., Ph.D., M.P.H.
COMMISSIONER

INTRODUCTION

Since the Massachusetts AIDS Force was established by Governor Dukakis in July of 1983, the Task Force has met monthly to review and assess the Commonwealth's monitoring, education, and treatment efforts relating to AIDS.

The Task Force has recommended policies based on medical, epidemiological, and scientific evidence to assure that social interaction with people with AIDS is guided by scientific and medical knowledge of the disease and its transmission and is not predicated on fear and ignorance.

The enclosed policies have been recommended by the Governor's Task Force on AIDS.

An ongoing search for answers to the cause, treatment, and prevention of AIDS is the highest priority of the Massachusetts public health community. The Massachusetts Department of Public Health and the Governor's Task Force on AIDS will continue to keep health professionals and the public informed of important developments in AIDS research, treatment, and social policy as they occur.

Bailus Walker, Jr., Ph.D., M.P.H.
Chairman, Massachusetts AIDS Task Force
Commissioner, Massachusetts Department of Public Health

January 1987

The Commonwealth of Massachusetts
Executive Office of Human Services
Department of Public Health
150 Tremont Street
Boston 02111

Bailus Walker, Jr., Ph.D., M.P.H.
COMMISSIONER

AIDS/Acquired Immune Deficiency Syndrome

School Attendance Policy*

Epidemiologic studies show that AIDS is transmitted via sexual contact or blood to blood contact. To date, there is no recorded transmission of AIDS to family members who are non-sexual contacts. This fact is also observed with medical personnel who directly care for and are exposed to AIDS cases. Since there is no evidence of casual transmission by sitting near, living in the same household, or playing together with an individual with AIDS, the following guidelines are recommended by the Governor's Task Force on AIDS for implementation in school systems throughout the Commonwealth.

1. All children diagnosed as having AIDS or with clinical evidence of infection with the AIDS associated virus, Human Immunodeficiency Virus (HIV), and receiving medical attention are able to attend regular classes.

   A. If a child has cutaneous (skin) eruptions or weeping lesions that cannot be covered, he/she should not be in school.

   B. If the child exhibits inappropriate behavior which increases the likelihood of transmission (i.e. biting or frequent incontinence), he/she should not be in school.

   C. Children diagnosed with AIDS or with clinical evidence of infection with the AIDS associated virus (HIV), who are too ill to attend school, should have an appropriate alternative education plan.

   D. Siblings of children diagnosed as having AIDS or with clinical evidence of infection with the AIDS associated virus (HIV) are able to attend school without any further restrictions.

*NOT INTENDED FOR DAY CARE
Refer to Recommendations for Caretakers of Children with Clinical AIDS

2. The child's personal physician is the primary manager of the child diagnosed as having AIDS or with clinical evidence of infection with the AIDS associated virus (HIV). Management includes acting as the "gate keeper" for the child's attendance at school in accordance with the policy outlined above.

   A. The child's personal physician, after consultation with the family, is responsible for reporting cases of AIDS to the Massachusetts Department of Public Health's Division of Communicable Disease. The school superintendent will be notified by the child's personal physician and will provide assistance in identifying those educational or health care agents with an absolute need to know.

   B. Only persons with an absolute need to know should have medical knowledge of a particular student. In individual situations, the superintendent might notify one or more of the following:

      . Principal

      . School Nurse

      . Teacher

   C. Notification should be by a process that would maximally assist patient confidentiality. Ideally, this process should be direct person to person contact.

   D. If school authorities believe that a child diagnosed as having AIDS or with clinical evidence of infection with the AIDS associated virus (HIV) has evidence of conditions described in #1, then the school authorities can dismiss the child from the class and request authorization from the child's personal physician so that class attendance is within compliance with the school policy.

   E. If school authorities and the child's personal physician are in conflict, then the case should be referred to the Department of Public Health for review by an appointed physician who would determine the permissibility of attendance.

3. Since the child diagnosed as having AIDS or with clinical evidence of infection with the AIDS associated virus (HIV) has a somewhat greater risk of encountering infections in the school setting, the child should be excluded from school if there is an outbreak of a

threatening communicable disease such as chicken pox or measles until he/she is properly treated (possibly with hyperimmune gamma globulin) and/or the outbreak has no longer become a threat to the child.

4. HIV screening is a blood test for detecting the presence of antibody to the HIV virus. Antibodies are substances produced by white blood cells that help fight infection caused by viruses or bacteria. Testing for HIV antibody is not recommended for any purposes other than to assist the child's personal physicians in a highly selected set of clinical decisions. Results of HIV antibody tests are confidential and should not be reported to schools.

5. Blood or any other body fluids including vomitus and fecal or urinary incontinence in any child should be treated cautiously. It is recommended that gloves be worn when cleaning up any body fluids.

   A. These spills should be disinfected with bleach (one part bleach to ten parts water), or another disinfectant, by pouring the solution around the perimeter of the spill.

   B. All disposable materials, including gloves, should be discarded into a plastic bag. The mop should also be disinfected with the bleach solution described in 5A.

   C. Persons involved in the clean-up should wash their hands afterward.

6. In-service education of appropriate school personnel should ensure that proper medical and current information about AIDS is available.

The Commonwealth of Massachusetts
Executive Office of Human Services
Department of Public Health
150 Tremont Street
Boston 02111

Bailus Walker, Jr., Ph.D., M.P.H.
Commissioner

RECOMMENDATIONS FOR CARETAKERS OF CHILDREN WITH CLINICAL AIDS OR EVIDENCE OF INFECTION WITH THE HIV INFECTION

I. Purpose:

The intention of the Governor's Task Force on AIDS concerning the preschool child and the developmentally disabled with clinical AIDS or evidence of infection with the AIDS associated virus, Human Immunodeficiency Virus, (HIV), is to establish standards:

1. To protect against risk of transmission of the AIDS associated virus among preschool aged children and individuals with developmental disabilities in group settings.

2. To protect the susceptible AIDS patient from infection.

3. To inform the care giver and other family members about the management of the child with AIDS.

4. To help the child with clinical AIDS or evidence of infection with the AIDS associated virus, HIV, to lead as normal a life as possible.

II. BACKGROUND:

AIDS (Acquired Immune Deficiency Syndrome) is a disease that leaves an individual vulnerable to illnesses that a health immune system might otherwise overcome. It is caused by a virus, Human Immunodeficiency Virus (HIV), and other possible co-factors yet to be clarified. Epidemiologic studies show that AIDS is transmitted primarily via intimate sexual contact or blood to blood contact. There is still no evidence of casual transmission by sitting near, living in the same household, or playing together with an individual with clinical AIDS or the AIDS associated virus, HIV.

The Centers for Disease Control noted in the August 30th "Morbidity and Mortality Weekly Report" (MMWR) that none of the identified cases of HIV infection in the United States are known to have been transmitted in school, daycare, or foster care settings or through other casual person-to-person contact. Further, studies of the transmission of HIV among family members of patients infected with the virus have failed to demonstrate transmission outside of sexual contract or in utero exposure.

However, the risk of transmission of HIV among preschool-aged children and the developmentally disabled in a group setting raises special THEORETICAL considerations that are not relevant in older children or with adults.

Because children at this age, particularly children in 0-3 age group, and the developmentally disabled, may lack control of their bodily secretions or may display behavior such as biting, there may be theoretical reasons to require a more restrictive environment for these children until more is known about transmission in these group settings.

III. The Attendance of Preschool Children and the Developmentally Disabled with Clinical AIDS or Evidence of HIV Infection in Group Settings.

1. Preschool children with clinical AIDS or evidence of infection with the HIV from birth through age 3 should not attend a group setting.

2. Preschool children 4 and 5 years old, if not already in kindergarten, and the developmentally disabled, may attend a group setting unless:

   A. The child has cutaneous (skin) eruptions or weeping lesions that cannot be covered.

   B. The child exhibits biting behavior or has infrequent incontinence or drooling. However, if it can be determined that supervision of the child is adequate to ensure that the Standards referred to in Section IV (and presented as Attachment A) can be maintained, attendance may be permitted. The child's preschool care giver should collaborate with the personal physician on the appropriateness of the child's attendance at the preschool in the above circumstances.

3. Siblings of children with clinical AIDS or evidence of infection with HIV should be able to attend school without any restrictions.

4. The child's personal physician is the primary manager of the child with clinical AIDS or evidence of infection with HIV. Management includes consultation with the preschool care giver as to the appropriateness of the child's attendance at preschool in accordance with the policy outlined above.

   A. The child's personal physician is responsible for reporting cases of AIDS to the Massachusetts Department of Public Health. The preschool care giver will be notified and will provide assistance in identifying those educational or health care agents with an absolute need to know.

B. Only persons with an absolute need to know should have medical knowledge of a particular child.

C. Notification should be by a process that would maximize patient confidentiality. Ideally, this process should be direct person-to-person contact.

D. If preschool authorities believe that a child with clinical AIDS or evidence of infection with HIV has evidence of the conditions described in #2 above, then the preschool care giver, after consultation with the child's physician and the state epidemiologist at the Department of Public Health (in unusual circumstances), may dismiss the child from the class.

5. Since the child with clinical AIDS or evidence of HIV infection has a somewhat greater risk of encountering infections in the school setting, the child should be excluded from school if there is an outbreak of a threatening communicable disease such as chicken pox or measles until he/she is properly treated (possibly with hyper immune gamma globulin) and/or the outbreak has no longer become a threat to the child.

6. HIV screening is a blood test for detecting the presence of antibody to HIV. Antibodies are substances produced by white blood cells that help fight infection caused by viruses or bacteria. The presence of antibodies indicates that a person has, at some unknown time, been exposed to the HIV in a manner sufficient for the body to respond by producing antibodies. Some antibody positive individuals will remain carriers of the virus. Additional tests to determine the carrier status in individuals are not always reliable or available outside of research settings.

   Routine screening for HIV antibody is not recommended. The primary physician may recognize individual situations where antibody testing would be useful in medical management. If a child has an HIV antibody test and it is positive, the preschool care giver will be notified. The precautions outlined in this policy will be observed for that child.

7. In-service education of appropriate school personnel should ensure that accurate information about AIDS is available.

IV. The attached Standards for Care of Children with Clinical AIDS or Evidence of Infection with HIV (Attachment A) should be observed by care givers of the preschool child or developmentally disabled individual with clinical AIDS or evidence of infection with HIV.

ATTACHMENT A

Standards for Care for Children with AIDS or Clinical Evidence of Infection with the AIDS Associated HIV

Socialization

The Guidelines for Caretakers of Children with AIDS or Infection with HIV are intended to assure that preschool children and the developmentally disabled are able to live as normal a life as possible while at the same time protecting against theoretical risk of transmission of AIDS in group settings for this age group.

Physicians of children diagnosed as having AIDS or with HIV infection will advise parents on the appropriateness of placement of the child in any social setting. Placement will depend on the level of development of the child, the ability of the setting to assure that standards established in these Guidelines are maintained, and the condition of the child with regard to open sores and lesions or any unusual behavior.

Play Activity

The level of activity for children with AIDS or clinical evidence of infection with the AIDS associated HIV will depend on the child and his/her physical health. The children can usually limit their own activity depending on how they are feeling. Group play should be well supervised so that toys, food bottles, anything in contact with body secretions are not shared. A cloth or tissue should be used to wipe off drools. Thorough hand washing should occur after handling saliva or other body fluids. This is the general hygienic principle recommended for handling all bodily secretions.

Hugging and Holding:

Affection and cuddling are highly encouraged; kissing on the mouth should not be permitted to protect both the care giver and the child, though there is no clinical evidence of transmitting the virus in this manner.

Feeding

Children with AIDS generally do not have a specific diet to follow. As with all children, a well-balanced nutritional intake should be encouraged to maintain strength and health. The utensils used by children with AIDS or clinical evidence of infection with AIDS associated, HIV, should be washed thoroughly in hot sudsy water followed by thorough rinsing and drying. This is a general hygienic principle. Dishwashers may also be used. The sharing of utensils, cups, bottles, and food should not be permitted. Pacifiers should be sterilized daily by boiling in water. Hands should be washed well with soap and water prior to and after feeding infants and young children.

Bottle Feeding

Bottles should be cleaned with hot sudsy water followed by thorough rinsing and drying. Gloves should be worn if care giver has a skin rash or a break in the skin such as a cut. Bottle-fed infants in general, and especially those with AIDS, should not be put to bed with a bottle of juice or milk because of increased opportunities for bacterial infection.

Diaper Care

Because children with AIDS are prone to other infections, hands should be washed thoroughly before and after changing diapers. Gloves should be worn when handling soiled diapers if there are any cuts or breaks in the skin. Again, this is a general hygienic principle. The AIDS virus is not transmitted by changing a diaper. Putting powder inside the gloves will make it easier to put them on and increases comfort. Disposable diapers should be placed in plastic bags and tied securely before being discarded. Toilet trained children should be supervised to ensure thorough hand washing after going to the bathroom.

Prevention of Skin Rashes

Since the child with AIDS has a weakened defense system, it is very important to keep the child's skin clean and intact. An intact skin surface is the body's first defense mechanism. The care giver should provide regular baths, proper drying, and use of lotions to prevent dryness or irritations. All children should be protected from sun and wind burns. Vaseline on the skin in cold weather provides an effective shield. If the child with AIDS or any other child has a cold, his/her face and hands, if soiled with secretions, should be washed as necessary. Feet should be observed for irritations from shoes and possible skin allergies to shoes. In all infants, especially those with AIDS, nails should be kept short and cut straight to avoid infection, scratching, and ingrowing.

Housekeeping Chores

Surfaces of equipment or furniture which might be contaminated with blood, urine, feces, vomitus, or saliva should be cleaned thoroughly and disinfected with household bleach, one part to each ten parts water, or another disinfectant. Gloves should be worn when cleaning soiled areas. A separate sponge should be used for kitchen and bathroom spills. Hands should be washed thoroughly after cleaning a spill. Items that become soiled with body secretions such as towels, linens, clothing, and other personal items, such as diapers used during burping, should not be shared. Everything can be washed well in hot water and detergent. Chlorine bleach should be added if items are soiled with blood, urine, feces, or vomitus.

Attachment A
Page 3

Prevention of Accidents and Illnesses

Prevention of infection is of prime importance for a child with an immune deficiency. Hand washing is the best way to protect both the child and care giver. A health care provider should be consulted at the earliest sign of illness. These signs and symptoms could include red watery eyes, sticky eyelids, red or scaly skin, running nose, fever, sore throat, cough, increased tiredness, muscle aches, crankiness, change in appetite, inability to hold food, vomiting, persistent diarrhea, rashes, and sores around the mouth. The child's health care provider should be contacted immediately if the child with AIDS is exposed to chicken pox, measles, or childhood diseases.

Treating Common Accidents and Illnesses

To monitor a child with AIDS or clinical evidence of infection with the AIDS associated HIV who has a fever, a rectal thermometer is required. This thermometer should be cleaned with soap and water and stored in a separate container. Gloves should be worn if there is contact with any blood or secretions and the care giver has cuts or breaks on his/her hands. If gloves are not available, hands must be washed thoroughly. The dressings or bandages should be discarded in a sealed plastic bag.

Prevention of Disease

The usual immunization schedule for children with AIDS or clinical evidence of infection with the AIDS associated HIV will be altered. Immunizations containing live viruses such as polio virus, measles, mumps, and rubella may not be given and substitutions will be required. This is also true for other members of the household. Consult with your physician for these special immunizations.

Revised September 1986

The Commonwealth of Massachusetts
Executive Office of Human Services
Department of Public Health
150 Tremont Street
Boston 02111

Bailus Walker, Jr., Ph.D., M.P.H.
Commissioner

RECOMMENDATIONS FOR HEALTH OFFICIALS AND FOOD INDUSTRY PERSONNEL ON AIDS AND HIV ANTIBODY SCREENING

INTRODUCTION

Local health officials and food industry representatives have raised questions about AIDS and food handling. The information provided below is intended to answer those questions and reflects the official position of the Massachusetts Department of Public Health (DPH). This policy on AIDS and food handling was formally endorsed by the Governor's Task Force on AIDS in October, 1985.

BACKGROUND

AIDS (Acquired Immune Deficiency Syndrome) is a disease that affects the human immune system rendering the body unable to fight off infection. A virus, known as HIV (Human Immunodeficiency Virus), has been identified as the cause of AIDS.

AIDS was first recognized in the United States in 1979. Since that time, approximately 24,430 people throughout the country have developed the symptomatic form of the disease. In Massachusetts, doctors have identified and reported 622 cases of AIDS as of September, 1986. Approximately one-half of the native AIDS cases in the state are located in Suffolk County.

Scientists have developed a blood test to detect the presence of antibody to HIV. The presence of this antibody does not mean that a person has AIDS or that a person necessarily will develop AIDS; it only indicates that a person has been exposed to the virus and has developed antibody to it. However, because some antibody-positive people may be carriers of the virus, the antibody test is now used to screen blood donors for exposure to the virus. In addition, doctors may use the antibody test in certain clinical circumstances. Results of this test are confidential.

RISK GROUPS

To aid in diagnosing and tracking the disease, researchers and doctors have identified groups of people who are at higher risk for contracting AIDS than the public as a whole. There are currently six segments of the population at high risk for AIDS:

- sexually active homosexual and bisexual men.
- intravenous drug users.
- steady sex partners of people who have AIDS or are in other high risk categories.
- people who are transfused with infected blood products (prior to the introduction of routine HIV antibody screening for blood donors in May, 1985).
- hemophiliacs who received infected blood products (prior to recent introduction of virus-free blood products).
- recent immigrants from countries where AIDS is endemic.

TRANSMISSION

AIDS is not a food-borne illness. The virus that causes AIDS is not highly contagious and requires intimate contact for transmission. While a small number of AIDS cases have been caused by transfusion of infected blood or use of certain blood products, this mode of transmission has been virtually eliminated through blood donor screening and by manufacturing processes that inactivate the virus. The primary avenues of transmission for AIDS remain sexual contact with an infected person and the sharing of blood-contaminated needles by illicit drug users.

There is no clinical or epidemiological evidence that AIDS can be spread through the food-borne route. No case of AIDS has been traced to food. The AIDS virus cannot multiply outside the body and, therefore, does not replicate in food. Furthermore, the virus is fragile and is readily destroyed during standard washing and sanitizing procedures.

AIDS is not spread by casual contact. It cannot be contracted by sitting next to someone with AIDS, by breathing the same air, sharing a meal or using the same rest room facilities.

RECOMMENDATIONS FOR FOOD HANDLERS WITH AIDS

A diagnosis of AIDS, in and of itself, is not cause for excluding a food handler from work or for restricting that worker's activities on the job. In addition, there is no reason to exclude from the food industry members of high risk groups or those who have developed antibody to HIV.

HIV inactivates the body's immune system, however, and AIDS patients may eventually develop complications that would interfere with the maintenance of established food sanitation standards. The health standards for personnel are

applicable to all food handlers and are clearly outlined in the Massachusetts Food Establishment Regulations. For example, any food handler with open skin eruptions, weeping lesions, or lacerations that cannot be covered with a waterproof bandage would be excused from work until the wounds have healed sufficiently. A food handler with an acute respiratory infection should remain out of work until his or her symptoms have subsided. A food handler who experiences bouts of vomiting and/or diarrhea should not work until the symptoms have subsided. An employee who has contracted a food-borne illness should not work until he or she is no longer capable of transmitting disease.

Because AIDS patients are susceptible to infection, they may be at increased risk of contracting a food-borne or communicable disease (i.e. chicken pox) from co-workers or the customers in a food establishment. If a communicable disease outbreak is suspected, food handlers with AIDS may wish to avoid exposure by remaining out of work. This decision should be left to the worker and his or her doctor.

FOOD HANDLER SCREENING

HIV screening is not recommended for use in the food industry. AIDS is not a food-borne illness, nor is it highly contagious. Use of this test for food handlers would be a misapplication of medical technology and could result in unfair labor practices and discrimination.

PROCEDURES FOR CLEAN-UP

If a food handler with AIDS or antibody to HIV sustains a laceration or experiences vomiting, diarrhea, or incontinence at work, affected food-contact and non-food-contact surfaces should be cleaned and sanitized in the same way food-contact surfaces are cleaned between food preparation procedures. Bleach water is an effective, readily available sanitizing solution. People who have an open cut or break in the skin on their hands should wear disposable gloves when cleaning up in these circumstances. The disposable gloves should be discarded, and non-disposable cleaning materials should be washed out in the sanitizing solution.

AIDS STATUS AS A REPORTABLE DISEASE

In Massachusetts, AIDS is classified as a reportable disease. State health regulations require doctors to report AIDS cases directly to the Department of Public Health. Because Suffolk County is the residence of a large proportion of the state's native AIDS cases, a joint surveillance system has been set up by DPH and the City of Boston's Department of Health and Hospitals. Information on individual AIDS cases is strictly confidential. The surveillance program, however, updates AIDS statistics on a monthly basis and distributes a monthly newsletter featuring a demographic summary of this information.

ROLE OF LOCAL HEALTH OFFICIALS AND FOOD INDUSTRY MANAGERS

Local health official and food industry managers can help stem AIDS hysteria by disseminating accurate, up-to-date information on AIDS and AIDS-related issues in the workplace and in their communities.

Revised September 1986

The Commonwealth of Massachusetts
Executive Office of Human Services
Department of Public Health
150 Tremont Street
Boston 02111

Bailus Walker, Jr., Ph.D., M.P.H.
Commissioner

LEMUEL SHATTUCK HOSPITAL
INFECTION CONTROL POLICIES AND PROCEDURES

SUBJECT: A HOSPITAL APPROACH TO AIDS

Acquired Immune Deficiency Syndrome (AIDS) is currently causing considerable concern throughout the United States. This concern is growing more and more every day as the number of cases continues to increase. The impact that this disease is having in all phases of health care delivery is evident. It is because of this that the Infection Control Committee of the Lemuel Shattuck Hospital feels that it is necessary to unify and clarify the approach that we must take in caring for patients with AIDS or possible AIDS.

The following recommendations have been prepared by the Advisory Committee on Infections within Hospitals of the American Hospital Association, with considerable consultative assistance from the Centers for Disease Control and from several hospitals that have had extensive experience with AIDS, and are hereby adopted for use in this hospital.

The Definition of AIDS as Applied to Infection Control Measures

The CDC has defined persons for whom precautions should be taken as "persons with: opportunistic infections that are not associated with other underlying immunosuppressive disease or therapy; Kaposi's sarcoma (patients under 60 years of age); chronic generalized lymphadenopathy, unexplained weight loss and/or prolonged unexplained fever in persons who belong to groups with apparently increased risks of AIDS (gay/bisexual men, intravenous drug abusers, hemophiliacs, recipients of blood transfusions, and sexual partners of one of the risk groups); and possible AIDS (hospitalized for evaluation)."

Among opportunistic infections that have been recognized within the AIDS syndrome are pneumonia, meningitis, or encephalitis due to one or more of the following: candidiasis, crptococcosis, cytomegalovirus, strongyloidiasis, toxoplasmosis, or atypical mycobacteriosis (especially avium-intracellulare species); esophagitis due to candidiasis, cytomegalovirus, or herpes simplex virus; progressive multifocal leukoencephalopathy; chronic enterocolitis (duration of more than 4 weeks) due to cryptosporidiosis; or unusually extensive mucocutaneous herpes simplex (duration of more than 5 weeks).

Included in the definition as of June 1985 are the following individuals:

In the absence of the opportunistic diseases required by the preceding information, any of the following diseases will be considered indicative of AIDS if the patient has a positive serologic or virologic test for Human Immunodeficiency Virus (HIV):

a) disseminated histoplasmosis (not confined to lungs or lymph nodes), diagnosed by culture, histology, or antigen detection;

b) isosporiasis, causing chronic diarrhea (over 1 month), diagnosed by histology or stool microscopy;

c) bronchial or pulmonary candidiasis, diagnosed by microscopy or by presence of characteristic white plaques grossly on the bronchial mucosa (not by culture alone);

d) non-Hodgkin's lymphoma of high-grade pathologic type (diffuse, undifferentiated) and of B-cell or unknown immunologic phenotype, diagnosed by biopsy;

e) histologically confirmed Kaposi's sarcoma in patients who are 60 years old or older when diagnosed.

In the absence of the opportunistic diseases required by the current case definition, a histologically confirmed diagnosis of chronic lymphoid interstitial pneumonitis in a child (under 13 years of age) will be considered indicative of AIDS unless test(s) for HIV are negative.

Patients who have a lymphoreticular malignancy diagnosed more than 3 months after the diagnosis of an opportunistic disease used as a marker for AIDS will no longer be excluded as AIDS cases.

To increase the specificicty of the case definition, patients will be excluded as AIDS cases if they have a negative result on testing for serum antibody to HIV, have no other type of HIV test with a positive result, and do not have a low number of T-helper lymphocytes or a low ratio of T-helper to T-suppressor lymphocytes. In the absence of test results, patients satisfying all other criteria in the definition will continue to be included.

Confidentiality of the Patient

Because of the publicity that AIDS has received, special care needs to be taken to preserve the dignity and confidentiality of AIDS patients at these times. Incumbent with the need for confidentiality of the patient is the procedure that ensures that both the staff and the patient are protected is "BLOOD/BODY FLUID PRECAUTIONS," as recommended in the CDC Guideline for Isolation Precautions in Hospitals. The precautions, but not the diagnosis, should be clearly identified. Specimens being sent to the laboratory shall be labeled "BLOOD/BODY FLUID PRECAUTIONS."

Patient Care Precautions

1. A private room is not routinely necessary for the care of HIV positive patients. A private room is recommended for patients with AIDS who are unable to maintain meticulous hygiene (e.g. those with profuse diarrhea, fecal incontinence, or altered behavior due to central nervous system infections) and these patients should have appropriate supervision when out of the room.

2. To obviate concerns about mouth-to-mouth respiration, portable cardiopulmonary resuscitation equipment, e.g., a disposable ambu-bag with a disposable mask and/or s-tube airway, should be immediately available for use on AIDS patients.

3. Masks are not routinely necessary for the care of AIDS patients. The use of masks is recommended for health care personnel who have direct, sustained contact with a patient who is coughing extensively or a patient who is intubated and being suctioned.

4. The use of gowns is recommended only if soiling of clothing with blood or body fluids is anticipated.

5. The use of nonsterile gloves is recommended if contact with blood or body fluids, secretions, or excretions is anticipated. This recommendation is particularly important to personnel who have cuts or abrasions on their hands.

6. Hands must be washed routinely when caring for AIDS patients, especially if they are contaminated with blood, body fluids, secretions, or excretions. This precaution should be observed regardless of the use of gloves.

7. The use of protective eyewear, such as goggles, is recommended in situations in which the splatter of blood, body secretions, or body fluids is possible. This is particularly recommended in the performance of procedures such as endotracheal intubation, bronchoscopy, or GI endoscopy. Precautions during other surgical procedures should be judged on an individual basis.

8. Needles and syringes should be disposable and should be disposed of in rigid, puncture-resistant containers. Needles should not be recapped and should not be purposely bent or broken by hand, since accidental needle puncture may occur. The use of needle-cutting devices is not recommended.

9. Extraordinary care should be taken to avoid accidental wounds from needles or other sharp intstruments. Parenteral injections and blood drawing should be planned to keep these procedures at a minimum; they should be carried out by experienced personnel.

10. Blood and other specimens should be labeled prominently with a warning, i.e., "BLOOD/BODY FLUID PRECAUTIONS." The label should accompany the specimen through all phases of processing until ultimate disposal. If the outside of the specimen container is visibly contaminated with blood, it should be cleaned with a disinfectant, such as freshly prepared (once daily) 1:10 dilution of 5.25% sodium hypochlorite (household bleach) with water. All blood specimens should be placed in a second container, such as an impervious bag, for transport.

11. Soiled linens and other laundry should be bagged, appropriately labeled or color-coded, and processed according to the existing policy regarding linens form the patients on isolation precautions. (See section of this manual on "Isolation Techniques" for proper procedure.)

12. Nondisposable articles contaminated with blood or body fluids should be cleaned with a disinfectant, such as freshly prepared (once daily) 1:10 dilution of 5.25% sodium hypochlorite (household bleach) with water before being bagged and labeled and sent to the central supply area for terminal decontamination and reprocessing.

    Disposable items should be incinerated or disposed of in accordance with policies for disposal of infectious waste. Additional precautions that extend well beyond those currently considered appropriate in light of current knowledge, such as incineration of linens and reusable gowns or other medical care equipment ordinarily considered reusable or use of unusual or inappropriate cleaning methods of environmental surfaces, are not only wasteful but contribute further to the unwarranted fear of patients with AIDS.

13. No special precautions for dishes are necessary; either reusable (washed in a dishwasher at 140 degrees F.) or disposable dishes may be used.

14. Patients with AIDS who are being transported require no special precautions other than "BLOOD/BODY FLUID PRECAUTIONS." AIDS patients with infections requiring isolation precautions should be managed according to existing hospital policy for Isolation Techniques. Personnel in the area to which the resident is to be taken should be notified of precautions to be used prior to the patient's arrival in that area.

15. Decontamination of surgical equipment, endoscopes, and so forth, should be accomplished by the same sterilization procedures for such equipment used with hepatitis B. If possible, surgical procedures on AIDS patients should be scheduled at the end of the day, to allow sterilization of endoscopes overnight (shorter-term procedures result in high level disinfection rather than sterilization). Invasive patient care equipment should be disposable or must be sterilized. Lensed instruments should be sterilized with ethylene oxide. Ventilator tubing should be either disposable or sterilized before reuse. Instruments that come in contact with blood, secretions, excretions, or tissues, including laryngoscopes, must be sterilized with ethylene oxide before reuse.

16. Blood spills should be cleaned up promptly with a solution of 5.25% sodium hypochlorite, diluted 1:10 water (prepared daily).

17. Routine HIV screening is currently being considered for dialysis patients. However, until a decision is reached the following is recommended for known HIV infected patients who may require hemodialysis or peritoneal dialysis. Whenever the possibility of exposure to blood or other body fluids exists it may require the use of gloves alone, as in handling items soiled with blood or equipment contaminated with blood or other bodily fluids, or may also require gowns, masks, and eye-coverings.

18. Patients with AIDS who must undergo dental procedures should be managed just as patients known to be carriers of HB_SAg. The use of protective eyeware, masks, and nonsterile gloves is recommended if splattering is likely to occur. Dental instruments must, of course, be sterilized after such procedures.

Precautions in Clinical Laboratories

1. The precautions to be taken in clinical laboratories are essentially the same as those recommended for processing specimens from patients known to be carriers of HB_SAg.

2. Mechanical pipetting devices must be used for the manipulation of all liquids in the laboratory. Mouth pipetting must not be allowed.

3. Needles and syringes should be handled as described previously.

4. Laboratory coats, gowns, or uniforms should be worn while working with potentially infectious materials and should be removed before leaving the laboratory.

5. Gloves should be worn when handling blood, tissue specimens, blood soiled items, body fluids, excretions, and secretions, as well as surfaces, materials, and objects contaminated by them.

6. All procedures and manipulations of potentially infectious material is to be performed to minimize the creation of droplets and aerosols. Procedures that have a high potential for creating aerosols or infectious droplets include centrifuging, blending, sonicating, vigorous mixing, and harvesting infected tissues from animals or embryonated eggs. Such procedures should be carried out in biological safety cabinets (class II). Whenever centrifugation of blood or body fluids from AIDS patients is necessary, the use of centrifuge safety cups is recommended.

7. Eating, drinking, and smoking is prohibited in the immediate laboratory area.

8 Laboratory work surfaces should be decontaminated with a disinfectant, such as sodium hypo chlorite solution, prepared as previously outlined on page 4, item 16. This should be prepared on a daily basis and used to wipe up any spills of potentially infectious material.

9. Infectious waste from the laboratory should be processed according to established hospital policy for disposal of infectious waste.

10. Tissue or serum specimens to be stored should be clearly and permanently labeled as potentially hazardous.

11. All personnel should wash their hands following completion of laboratory activities, after removal of protective clothing, and before leaving the laboratory.

12. Pregnant personnel should follow the guidelines recommended in this policy that are outlined in the service section entitled "Pregnant Personnel."

Autopsy Precautions

The following recommendations for AIDS autopsy precautions are adapted from joint recommendations of the Centers for Disease Control and the College of American Pathologists and are hereby adopted for use in the Lemuel Shattuck Hospital:

> As part of immediate postmortem care, patients with AIDS or suspect AIDS SHOULD BE IDENTIFIED "infectious hazard (blood/body fluid precautions)" and that identification should remain with the body whether or not an autopsy is carried out, for delivery to morticians.
>
> Double gloves, protective eye covering, masks, cap and gown, and a waterproof apron and shoe coverings should be worn by personnel performing or viewing an autopsy in order to prevent parenteral or muccosal innoculation.

The deceased, and any bagged disposal items, should be tagged as above to prevent unwitting subsequent exposure of other personnel to contaminated articles. Methods that will avoid or minimize aerosol distribution of infectious agents should be used. As an example, bones should be cut with a handsaw rather than an electric saw.

The following should be decontaminated with 0.5 percent sodium hypochlorite at the conclusion of an autopsy:

1. Autopsy table.

2. All contaminated instruments, for 1 hour before washing and autoclaving.

3. Other contaminated items that cannot be disposed of or autoclaved, including the outside of tissue containers.

Tissue samples should be thoroughly fixed in 10 percent buffered formalin before trimming for histology.

Blood and Blood Products

The risk of acquiring AIDS from blood transfusions appears to be very low, on the order of 1:1 million units transfused. Few hospitals or blood banks have the facilities to collect and store blood from directed transfusions for future use or to administratively manage such a program. Autologous blood transfusion is safe in that it does not expose the transfusion recipient to any new diseases or antigens, and such programs should be encouraged (e.g. available through the Red Cross).

There is no evidence, to date, suggesting a possible risk of AIDS associated with the use of immune serum globulin or any of the hyperimmune globulins prepared by generally accepted techniques.

While some pools of Factor VIII concentrate may have contained the putative AIDS agent, the number of hemophiliacs who have developed AIDS is still quite low. Factor VIII concentrate available now has been "heat treated" which has been shown to remove viable HIV and is thereby now considered safe from AIDS.

Accidental Exposures of Personnel to HIV

Based on current information, a significant accidental exposure to AIDS is defined just as is a significant accidental exposure to hepatitis B, that is, accidental parenteral inoculation with blood or blood-contaminated instruments such as needles or other sharp instruments and mucous membrane or open skin lesion contact with blood or body fluids from AIDS patients. Extraordinary care should, of course, be taken to avoid such accidental exposures. Such accidental exposures do occasionally occur, however, and therefore employees with such exposures should report promptly to the employee health office or to their supervisor.

If a caretaker has a parenteral (e.g. needlestick or cut) or mucous membrane (e.g. splash to the eye or mouth) exposure to blood or other body fluids, the source patient should be assessed clinically and epidemiologically to determine the likelihood of HIV infection. If the assessment suggests that infection may exist, the patient should be informed of the incident and requested to consent to serologic testing for evidence of HIV infection. If the source patient has AIDS or other evidence of HIV infection, declines testing, or has a positive test, the health care worker should be evaluated clinically and serologically for evidence of HIV infection as soon as possible after the exposure and, if seronegative, retested after six weeks and on a periodic basis thereafter (e.g. 3, 6, and 12 months following exposure) to determine if transmission has occurred. During this follow-up period, especially the first 6-12 weeks when most infected persons are expected to seroconvert, exposed caretakers should receive counseling about the risk of infection and follow U.S. Public Health Service (PHS) recommendations for preventing transmission of AIDS. If the source patient is seronegative and has no other evidence of HIV infection, no further follow-up of the health care worker is necessary. If the source patient cannot be identified, decisions regarding appropriate follow-up should be individualized based on type of exposure and the likelihood that the source patient was infected.

Also, since these patients are often in high-risk groups for hepatits B, it would seem prudent to follow existing recommendations for hepatits B prophylaxis. The recommended post-exposure prophylaxis for acute percutaneous exposure to hepatitis B virus is:

Recommendations for Hepatitis B Prophylaxis After Percutaneous Exposure

Source	Exposed Person	
	Unvaccinated	Vaccinated
HBsAg positive	1. One dose of HBIG* immediately. 2. Initiate hepatitis B vaccine series.**	1. Test exposed person for anti-HBs. 2. If inadequate antibody (<10 sample ratio units by RIA or negative by EIA), give one dose of HBIG* immediately plus hepatitis B vaccine booster dose.
Known source is A (see below)	1. Initiate hepatitis B vaccine series.** 2. Test source for HBsAg; if positive, give one dose of HBIG* immediately.	1. Test source for HBsAg only if exposed person is vaccine nonresponsive; if source is HBsAg positive, give one dose HBIG* immediately plus hepatitis B vaccine booster dose.
is B (see below)	Initiate hepatitis B vaccine series.	Nothing required.
Unknown Source	Initiate hepatitis B vaccine series.	Nothing required.

* One dose of hepatitis B immune globulin (HBIG) is 0.06 mL/kg body weight, intramuscularly. HBsAg = hepatitis B surface antigen; RIA = radioimmunoassay; EIA = enzyme immunoassay; anti-HBs = antibody to HBsAg.

** Hepatitis B vaccine series is 20μg intramuscularly for adults, 10μg intramuscularly for infants or children under 10 years of age. The first dose is given within 1 week of exposure and the second and third doses 1 and 6 months later, respectively.

A. is a high risk of being HBsAg positive.

B. is a low risk of being HBsAg positive.

No information is available on the potential benefits or problems associated with the use of other active or passive immunizing agents or therapies in this situation.

Public Relations

Public relations issues present both problems and opportunities. Some hospitals have found that the treatment of patients with AIDS has had adverse public relations consequences. On occasion, members of the press have placed disruptive and time-consuming demands upon hospital staff. On other occasions, patients or members of the medical staff have placed inappropriate demands on the hospital, such as by asking that AIDS patients not be treated in the institution. The hospital must not allow these disruptions to interfere with patient care.

In dealing with the press, careful and honest sharing of information will usually diminish adverse publicity, and promote public education. This can be accomplished with the following in mind. First, patient confidentiality and dignity must be preserved. Second, a knowledgeable and authoritative representative of the hospital must designate a representative to the press, and other hospital staff members are required to coordinate all press communication through that representative.

Personnel Management

Some health care personnel, including physicians, have been reluctant to provide hands-on care to AIDS patients. At this time there is no evidence that the risks in doing so are any greater than the risks associated for caring for any other sick persons. The advisory committee recommends that otherwise healthy health care personnel should not be excused on their own request from providing care to patients with AIDS; there is no scientific or ethical reason to do so. If an employee simply refuses to perform his or her duties in relation to caring for AIDS patients, the issue becomes a legal and administrative problem to be resolved on an individual basis. Legal counsel is advised in this situation.

Health care personnel who believe they may be at increased risk because they are immunosuppressed or have other clinical conditions that may confer an increased risk of acquiring an infection should discuss their work responsibilities with the employee health office or with their own personal physician. If the physician determines that that person is indeed at an increased risk, or that there are certain work assignments that the employee should not accept in relation to the care of AIDS patients, a written recommendation should be provided to the employing department for appropriate action in accordance with Lemuel Shattuck Hospital's personnel policies and procedures.

Information for Pregnant Personnel

There is no known increased risk to pregnant personnel from caring for AIDS patients. However, many patients with AIDS excrete large amounts of cytomegalovirus (CMV). Both the AIDS virus and CMV are a potential risk to the fetus. Hence, it is recommended that a practical approach to reducing the risk of infection with either the AIDS virus or CMV is to inform pregnant personnel

of the potential for teratogenisis. Careful handwashing should of course be stressed after all patient contacts and avoidance of contact with areas or materials that are potentially infective. CMV virus can be shed in the urine, saliva, respiratory secretions, tears, feces, breast milk, semen, and cervical secretions. To date, HIV has been isolated from blood, semen, saliva, tears, breast milk, and urine and is likely to be isolated from some other body fluids, secretions, and excretions, but epidemiologic evidence has implicated only blood and semen transmission.

Personnel with AIDS or Suspect AIDS

To date there is no evidence that health care workers infected with HIV have transmitted infection to patients. A risk of transmission of HIV infection from health care workers to patients would exist in situations where there is both (1) a high degree of trauma to the patient that would provide a portal of entry for the virus (e.g., during invasive procedures) and (2) access of blood or serous fluid from the infected health care worker to the open tissue of a patient, as could occur if the health care worker sustains a needlestick or scalpel injury during an invasive procedure.

Health care workers known to be infected with HIV who do not perform invasive procedures need not be restricted from work unless they have evidence of other infection or illness for which any health care worker should be restricted.

Precautions to prevent transmission of HIV infection from health care workers to patients, regardless of whether they perform invasive procedures are:

1) All HCW should wear gloves for direct contact with mucous membranes or nonintact skin of all patients.

2) HCWs who have exudative lesions or weeping dermatitis should refrain from all direct patient care and from handling patient-care equipment until the condition resolves.

3) HCWs infected with HIV should be counselled about the potential risk associated with taking care of patients with transmissible infections and should continue to follow existing hospital policy for infection control to minimize their risk of exposure to other infectious agents.

Care of AIDS Patients

Precautions are advised for persons and specimens from persons with opportunistic infections that are not associated with underlying immunosuppressive disease or therapy. "BLOOD/BODY FLUID PRECAUTIONS" shall be observed for these categories of patients:

A. Kaposi's sarcoma (patients under 60 years of age)
(patients over 60 years of age who have a positive HIV antibody titer)

B. Chronic generalized lymphadenopathy, unexplained weight loss, and/or prolonged unexplained fever in persons who belong to groups with apparently increased risks of AIDS:

1. gay/bisexual males
2. intravenous drug abusers
3. blood transfusion recipients
4. hemophiliacs
5. heterosexual contacts of persons with HIV infection

C. Possible AIDS (hospitalized for evaluation) specifically AIDS related complex (ARC)

PATIENTS WHO MERELY BELONG TO ONE OF THE HIGH-RISK GROUPS, BUT WHO DO NOT HAVE OTHER CLINICAL EVIDENCE OF AIDS, DO NOT NEED THESE PRECAUTIONS.

It is important to understand that the diagnosis of AIDS in a patient requires only "BLOOD/BODY FLUID PRECAUTIONS," just as for hepatitis B. If a patient with AIDS has another infection or condition requiring additional precautions, then these should be added, according to the CDC GUIDELINE FOR ISOLATION PRECAUTIONS IN HOSPITALS. (Also see, Infection Control Manual, LSH, section 22, Isolation Techniques.)

Management of AIDS Patients in the Outpatient Department

The preceding recommendations also apply to the management of patients with AIDS or suspect AIDS in the outpatient clinics of this hospital. Segregated examining rooms for AIDS patients are neither necessary nor desirable. Outpatients with AIDS may use the same waiting areas and bathroom facilities as other patients unless the presence of other infections may require special precautions.

Management of Parenteral and Mucous Membrane Exposure of Patients

If a patient has a parenteral or mucous membrane exposure to blood or other body fluids of a health care worker, the patient should be informed of the incident and the same procedure outlined under the section accidental exposures should be followed for both the source health care worker and the potentially exposed patient.

Conclusion

HIV is transmitted through sexual contact, parenteral exposure to infected blood or blood components, and perinatal transmission from mother to neonate. Patients and workers alike known to be infected with HIV should not be restricted solely on the basis of this. Specifically, they should not be restricted from using the telephones, office equipment, toilets, showers, eating facilities, and water fountains. Equipment contaminated with blood or other body fluids of any patient or health care worker, regardless of HIV infection status, should be cleaned with soap and water or a detergent. A disinfectant solution or a fresh solution of sodium hypochlorite, (prepared as outlined previously) should be used to wipe the area after cleaning.

References

1. Update on acquired immunodeficiency syndrome (AIDS) - United States, MMWR 31;507-14, 1982.

2. Acquired immunodeficiency syndrome (AIDS): Precautions for clinical and laboratory staff. MMWR 31:577-80, 1982.
3. An evaluation of the acquired immunodeficiency syndrome (AIDS) reported in health care personnel - United States. MMWR 32:358-60, 1983.
4. Update: acquired immunodeficiency syndrome (AIDS) - United States. MMWR 32:389-91, 1983.
5. Acquired immunodeficiency syndrome (AIDS): Precautions for health care workers and allied professionals. MMWR 32:450-51, 1983.
6. Update: acquired immunodeficiency syndrome (AIDS) - United States, MMWR 32:465-67, 1983.
7. Conte, J.E., Jr., Hadley, W.K., Sande, M. and the University of California San Francisco, Task Force on the Acquired Immunodeficiency Syndrome. Special Report: Infection Control Guidelines for Patients with the acquired immunodeficiency syndrome (AIDS). New England J. Med. 309:740-44, 1983.
8. Safe Blood for Transfusion. The Medical Letter on Drugs and Therapeutics 25:93-95, 1983.
9. Garner, J.S. and Simmons, B.P., CDC Guideline for Isolation Precautions in Hospitals. Infection Control 4:326-349
10. Summary of recent information: acquired immunodeficiency syndrome. College of American Pathologists, Skokie, IL, July 1983.
11. AIDS case definition revised - Massachusetts Department of Public Health/Boston Department of Health and Hospitals, AIDS NEWSLETTER 1:6, 1985.
12. Recommendations for Protection Against Viral Hepatitis: Recommendation of the Immunization Practices Advisory Committee, CDC, Department of Health and Human Services; Atlanta, Ga. Annals of Internal Medicine 103:391-402, 1985.
13. Summary: Recommendations for Preventing Transmission of Infection with HTLV III/LAV in the workplace. MMWR 34:681-694, 1985.

Revised September 1986

The Commonwealth of Massachusetts
Executive Office of Human Services
Department of Public Health
150 Tremont Street
Boston 02111

Bailus Walker, Jr., Ph.D., M.P.H.
COMMISSIONER

GENERAL INFECTION CONTROL GUIDELINES FOR PRE-HOSPITAL CARE PERSONNEL

In the pre-hospital care setting, you will probably NOT be aware that a patient is "infected" with the AIDS virus or another communicable disease. Since many potentially infectious persons have no specific symptoms or complaints, they may have no awareness of their potential to transmit their disease to others. Therefore, the following routine precautions should be observed by pre-hospital care personnel for ALL patient contacts.

1) Cover any open cuts or lesions on your own hands with bandages or gloves while rendering patient care. Apply dressings to all wounds on your patient(s) and minimize direct contact with blood or secretions as much as possible. Do not touch your eyes or mouth before washing your hands thoroughly, after you have contact with a patient's blood or other secretions.

   If you discover that your patient is infected with the AIDS-associated or hepatitis B viruses AND is actively bleeding or incontinent, you should wear gloves and gowns to minimize contact with the patient's blood. Wearing a mask is not necessary, since these viruses are spread by blood to blood contact and not via a respiratory route.

2) Always have resuscitation equipment with you to preclude the need for mouth-to-mouth/nose resuscitation. Use of pocket masks by EMT's and First Responders is recommended. Remember the administration of 100% oxygen is preferred and many pocket masks can be connected to oxygen delivery equipment. However, nothing should ever delay the administration of basic life support measures (i.e. CPR).

3) Use extreme caution when removing glass fragments from patients clothes or body. Use work gloves whenever possible to avoid accidental cuts.

4) Never reapply caps or sheaths to needles or syringes. Cut needle from holder and dispose of all pieces in an impervious container. Do not pass needles from person to person or leave needles exposed at any time.

5) Provide tissues and instruct patients to use them when coughing or sneezing. Wash your hands thoroughly after contact with or disposal of used tissues. If you will be in prolonged contact (1/2 hour or longer) with a patient who is coughing/sneezing frequently, you may wish to wear a mask to minimize your chances of infection.

6) Launder soiled linen, uniforms, etc. in hot water and detergent. Use bleach according to directions, whenever possible.

7) Receive appropriate immunizations (rubella, hepatitis B and tetanus toxoid) and annual tuberculin tests. Establish and maintain communication with he Infection Control Practitioner at each hospital you transport to for notification of any infectious disease exposures. Be sure to have adequate documentation for every patient contact you have, whether you have transported a patient or not.

8) As indicated in the attached Cleaning Procedures for Ambulance Equipment and Interior, clean your vehicle and equipment after EVERY patient contact. Be sure to thoroughly clean all equipment used and the interior of the ambulance with an approved disinfectant in the event of a confirmed communicable disease exposure.

11/18/85

CLEANING PROCEDURES FOR AMBULANCE EQUIPMENT AND INTERIOR

Any piece of equipment or surface can become contaminated with any number or type of viruses and/or bacteria, especially those items that come in contact with the victim's mouth, nose or body fluids (i.e. blood). Since many people may be unaware that they are carrying a communicable disease, it is important for EMT's to adhere to a routine cleaning regimen.

After every patient treatment or transport, EMT's should clean up any obviously "dirty" equipment and the ambulance interior to minimize the spread of microorganisms. Any spilled blood must be cleaned up at the first available opportunity. The most important part of the cleaning process is vigorous scrubbing. The friction generated during scrubbing dislodges not only dirt, but also any microorganisms that may be present. For items that are not obviously dirty, a simple washing with hot water and detergent should suffice.

For "hard surface" items, such as the walls and floor of the ambulance, the stretcher, cot mattress, backboards, splints, etc. the EMT should SCRUB these items with hot water and detergent. This should be followed by a scrubbing with a disinfectant such as those listed in Table 2 in the attached article entitled Cleaning, Disinfection and Sterilization of Hospital Equipment, followed by a rinse with clear hot water. Allow surfaces to air dry. (NOTE: wooden backboards and splints must be kept well varnished to prevent water damage and absorption of contaminated fluids.)

For "soft surface" items, such as face masks, suction units, bag-valve-mask and demand units, EMT's should check the manufacturers instructions for the preferred cleaning method.

In general, such items should be scrubbed, while holding them under the surface, in hot water and detergent and then rinsed in hot water. Small brushes may be necessary to clean hard to reach areas.

Next disinfect the items following the manufacturers specific instructions with respect to the use of alcohol, dilute bleach or other disinfectants. Some of these products may stain, damage or be absorbed into some rubber, plastic or foam products. Alcohol will harden, discolor and eventually crack most plastic materials. Dilute bleach may corrode certain metals.

CLEANING PROCEDURES

Allow items to air dry in order to dissipate fumes prior to use and place them into plastic, self-closing storage bags to protect them from contamination (i.e. face masks, oral/nasal airways, EGTA tubes, bite sticks, laryngoscope blades, etc.) EGTA tubes, airways and bite sticks should be sent for packaging and sterilization after this initial cleaning. (NOTE: items marked disposable must never be reused.)

NOTE: During the above cleaning steps, EMT's should wear heavy duty rubber gloves to protect their hands from hot water, detergent, etc.

Many hospitals will cooperate with local ambulance services and accept ambulance equipment for sterilization at the hospital. Contact the infection control, central service, sterile supply or other department that maintains the sterilization equipment. You will be advised as to how the equipment must be prepared and the maximum size that can be fitted into their sterilization device.

In general, equipment must be disassembled, thoroughly cleaned and packaged in wrappers they may provide. IT IS VERY IMPORTANT TO SEPARATE heat and moisture sensitive items from more durable items. Hospitals use a high pressure steam autoclave that sterilizes at very high temperatures (250-280 degrees F). For more sensitive equipment, such as plastics, rubber and electronic items, an ethylene dioxide gas sterilizer is used. When delivering items to be sterilized, be sure to label these items appropriately so they are not damaged by steam sterilization and do not mix gas and steam sterilizable items in the same packages. Hospital personnel will give you more specific steps to follow.

Oxygen humidifiers (non-disposable) should be cleaned and fresh distilled sterile water changed at least once a week. Use of plastic disposable humidifier units is preferred, since each unit may be either transferred with the patient or disposed of after each use.

Linen and uniforms should be laundered in hot water and detergent. When appropriate, use laundry bleach according to directions. (Liquid bleach should not be used on most colored fabrics).

Helpful hint: Blood stained fabrics can be soaked in hydrogen peroxide and cold water prior to laundering.

REMEMBER, many organisms which have the potential for causing infection can be transmitted to others when emergency care equipment is not properly cleaned. This is especially true of face masks, bag-valve-mask units, demand valve units and suction units. It is important to completely disassemble and clean these units after each use. EMT's must ensure a safe working environment for themselves and their patients by adhering to a routine cleaning regimen.

These cleaning procedures apply to all cases involving any communicable disease (i.e. AIDS, hepatitis B, tuberculosis, etc.) There are no other "special" procedures necessary if the preceding cleaning regiment is adhered to.

Cleaning, Disinfection, and Sterilization of Hospital Equipment

INTRODUCTION

Cleaning is the physical removal of organic material or soil from objects, and it is usually done by using water with or without detergents. Generally, cleaning is not designed to kill microorganisms but to remove them. Sterilization, on the other hand, has as its goal the complete removal or destruction of all forms of microbial life and is carried out in the hospital with steam under pressure, liquid or gas chemicals, or dry heat. Disinfection describes the intermediate measures between physical cleaning and sterilization and is carried out with pasteurization, ultraviolet radiation, or liquid chemicals. The degree of disinfection accomplished depends upon several factors but principally upon the strength of the agent and the nature of the contamination. Some disinfection procedures are capable of producing sterility if they are continued long enough; when these procedures are continued long enough to kill all but resistant bacterial spores, they are called high-level disinfection processes. Other disinfection procedures kill many viruses and most vegetative bacteria but cannot be relied upon to kill resistant organisms such as tubercle bacillus, spores, or certain viruses; these are called low-level disinfection processes. This guideline deals with the cleaning, disinfection, and sterilization of hospital equipment, a task usually performed by the central services department.

EPIDEMIOLOGY

Parts of the hospital environment can be heavily contaminated with potentially pathogenic organisms, but the objects themselves do not usually cause disease unless they are touched or placed onto the body or unless body fluids flow through them. Thus, contaminated *patient-care* supplies or equipment are the most likely objects of the inanimate environment to cause infection. Ironically, contaminated antiseptics (products designed for use on the skin or other tissue) and low-level disinfectants themselves have also been associated with infections.

CONTROL MEASURES

Since it is neither necessary nor possible to sterilize all environmental objects, hospital policies should provide for cleaning, disinfection, or sterilization as necessary to decrease the risk of infection. Which process is indicated for an object depends on the object's intended use and, sometimes, the type of contamination. Any microorganisms, including bacterial spores, which come in contact with normally sterile tissue can cause infection. Thus, it is "critical" that all objects which will touch normally sterile tissues be sterile. However, intact mucous membranes are generally resistant to infection by common bacterial spores but not by many other organisms such as viruses and tubercle bacilli; it is "less critical" that objects touching mucous membranes be sterile, although these objects require a disinfection process that kills all but resistant bacterial spores. Intact skin acts as an effective barrier to all but the most virulent organisms, and it is "not critical" that objects which will touch only intact skin be sterile.

Objects potentially contaminated with virulent organisms, such as hepatitis viruses, *Shigella*, or multiply-resistant gram-negative bacilli, may require disinfection even if their use would normally dictate only cleaning. Tubercle bacilli and polio-, coxsackie-, echo-, and rhino-viruses are resistant to most germicidal agents and require high-level disinfection if they are to be reliably eliminated from reusable objects. Bacterial spores are the most resistant and require a sterilization procedure to be reliably eliminated.

Hospitals should perform most cleaning, disinfection, and sterilization of reusable patient-care objects in a central services department to maintain high levels of quality control; in addition, central processing can save money and free patient-care personnel from such activities. However, some hospitals are able to maintain high levels of quality control in closely monitored processing areas other than the central services department, such as an area adjacent to the operating rooms and in the respiratory therapy department.

Reusable objects must be thoroughly cleaned before processing because organic material (e.g., blood and proteins) inactivate disinfectants and protect microorganisms from disinfection and sterilization. Generally, these objects should be cleaned in the central services department. They should not be precleaned in patient-care areas because such precleaning is inefficient and because cleaning by hand can lead to injury and increased exposure to hepatitis virus. However, some objects that are heavily soiled, such as used bed pans, can benefit from precleaning. Before being sent to central services, objects contaminated with infectious materials or objects from patients in certain types of isolation *(1)* should be wrapped in impervious plastic and marked "contaminated" in order to decrease exposure of personnel to highly infectious microorganisms. These should be handled with gloves and "decontaminated" before or during cleaning, that is, they should be exposed to a disinfectant or disin-

fecting procedure to render them safe to handle. Moreover, objects exposed to patients in strict isolation that need to be processed in central services should be decontaminated in the room if they cannot otherwise be safely transported *(1,2)*.

For many "noncritical" reusable objects in hospitals such as heat lamps, crutches, wheelchairs, bedboards, and bedside utensils, central processing can consist only of 1) high-temperature washing or hand-scrubbing with a detergent or a disinfectant-detergent combination, 2) rinsing, and 3) thorough drying. Many such objects are not easily moved and can be cleaned where they are used. (A discussion of cleaning that is not done in the central services department or other closely monitored areas is included in the Housekeeping Guideline.) Many other objects, including most surgical instruments, can be cleaned by a mechanical washer-sterilizer. However, some delicate instruments might have to be carefully cleaned by hand. Once they are cleaned and inspected, objects requiring sterilization or disinfection are ready for further processing.

Use of pressurized steam in "autoclaves" is the most inexpensive and effective method for sterilization of most objects. Steam sterilization is unsuitable, however, for processing of plastics with low melting points, powders, or anhydrous oils. Residual air pockets can interfere with sterilization in autoclaves; thus, upright containers or steam-impervious wrappers should not be used. After cleaning and before sterilization, objects that will not be used immediately should be wrapped for storage. Sterility can be maintained in storage for various lengths of time depending mainly on the type of wrapping material and the conditions of storage. An item that has been sterilized might not be sterile at the time of use if its safe storage time has been exceeded or if its package has been wet or damaged.

Several methods have been developed to monitor steam sterilization processes, although steam autoclaves are highly reliable if they are used properly. Each sterilizer should be operated according to the manufacturer's instructions. The highest temperature that is reached during sterilization and the length of time that this temperature was maintained should be recorded and checked for adequacy; this check is the most important means of assuring sterility. In addition, heat- and steam-sensitive indicators should be used on the outside of each object. These indicators do not reliably indicate sterility, but they do show that an item has not accidently bypassed a sterilization process. As an additional precaution, a large pack might have an indicator both on the outside and the inside to verify that steam has penetrated the pack. Checks of steam sterilization should be carried out at least once a week using commercial preparations of spores of *Bacillus stearothermophilus* (an organism whose spores are particularly heat resistant, thus assuring a wide margin of safety). If a sterilizer is working properly and used appropriately, the spores are usually killed. A single positive spore test (spores not killed) does not necessarily indicate that objects processed in the same sterilizer are not sterile. It does suggest that the sterilizer should be rechecked for proper temperature, pressure, and use and that the test be repeated. Spore testing should be considered as just one of several methods of assuring adequate processing of inanimate objects in the hospital environment (Table 1).

Implantable objects, for example, implantable orthopedic devices, require special handling before and during sterilization. To guarantee a wide margin of safety, each load of such objects should be sterilized with a spore test, should not be released for use until the spore test is negative (at 48 hours), and should not be sterilized by "flash" steam sterilization (defined as sterilization of an unwrapped object at 270 °F or 132 °C for 3-5 minutes in a gravity displacement sterilizer). If it is not possible to sterilize an implantable object with a spore test 48 hours before use, then the object should still receive full-cycle steam and not flash sterilization. One acceptable method, steam sterilization at 270 °F for 10 minutes, takes only 5-7 minutes longer than flash sterilization and gives an adequate margin of safety, provided no porous objects (including towels) are included in the load. Packs containing implantable objects need to be clearly labeled so that they can be specially processed.

Because ethylene oxide gas sterilization is a more complex and expensive process than steam sterilization, it is usually restricted to objects that might be damaged by heat or moisture. Before sterilization, objects also need to be cleaned and wrapped. Chemically sensitive indicators should be used with each package to show that it has been exposed to the gas sterilization process. Gas sterilizers should be checked at least once a week with commercial preparations of spores of *Bacillus subtilis* (a resistant spore). All exhaust from gas sterilizers and aerators for gas sterilization should be vented directly to the outdoors because the gas is toxic. All objects processed by gas sterilization need special aeration according to manufacturer's recommendations to remove toxic residues of ethylene oxide.

High-level disinfection can be accomplished by hot-water pasteurization or liquid chemicals. Pasteurization is usually used only for respiratory therapy equipment. Liquid chemical disinfection can be time-consuming and expensive. Several chemical solutions are available (Table 2) for high-level disinfection. Solutions containing activated glutaraldehyde can achieve high-level disinfection in 10 to

Table 1. Methods of Assuring Adequate Processing of Inanimate Objects in the Hospital Environment

Object and Classification	Example	Method	Comment
PATIENT-CARE OBJECTS			
Sterility is *critical*			
Sterilized in the hospital: reusable and single use items	Surgical instruments and devices; angiography catheters	Use before maximum safe storage time. Inspect package for integrity and for exposure of sterility indicator before use Follow manufacturer's instructions for each sterilizer or use recommended protocol Test sterilizers to find out whether they can kill resistant commercial spores.	Sterilization processes are designed to have a wide margin of safety. If spores are not killed, the sterilizer should be checked for proper use and function. If spore tests remain positive, discontinue use of the sterilizer and have it serviced.
Purchased as sterile	Intravenous fluids; needles; syringes	Use before expiration date if one is given. Inspect package for integrity before use. Culture only if clinical circumstances suggest infection related to use of the item.	Notify the U.S. Food and Drug Administration if factory-related (intrinsic) contamination is suspected.
Sterility is *less critical*, but should be free of most vegetative bacteria			
Usually disinfected rather than sterilized in the hospital	Respiratory therapy equipment and instruments for gastrointestinal endoscopy that will touch mucous membranes	Sterilize if possible; if not, follow a protocol for high-level liquid chemical disinfection or wet pasteurization. Culture equipment after any important changes in the disinfection process.	These devices come in contact with mucous membranes. Resistant spores can remain after liquid chemical disinfection, but these are not usually pathogenic. Culturing can verify that a disinfection process (or disinfectant) has not resulted in marked increases in recovery of bacteria from equipment.
Purchased	Water, including water for hemodialysis	Use an adequately treated source of hospital water. Store fluids with proper chlorination to avoid microbial proliferation. Perform routine culturing of hemodialysis water.	The risk of disease appears to be related to the number of organisms present (unless virulent organisms are present). Water for hemodialysis may require further processing, e.g., deionization.
Sterility is *not critical* and can be expected to be contaminated with some bacteria	Bedpans; crutches; bed rails; water glasses; linens; food utensils; EKG leads; bedside tables, radiology suites, hemodialysis centers	Follow a protocol for cleaning (use a disinfectant or disinfecting process)	These items will not usually come in contact with open skin or mucous membranes
NON-PATIENT-CARE OBJECTS[a]			
***Likely to be contaminated* with virulent microorganisms**	Laboratories handling patient specimens[b]	Follow a protocol for cleaning (use a disinfectant or disinfecting process).	Areas handling blood or microbiologic specimens are most important.
***Unlikely to be contaminated* with virulent microorganisms**	Areas not involved in patient care: offices, storage areas	Perform routine cleaning.	Cleaning is aimed mainly at improving the appearance of and providing a proper atmosphere in which to work.

[a] Adequate processing of non-patient-care objects is primarily aimed at protecting personnel and others who come in contact with these objects; sterility is *not critical*.

[b] For disposal of specimens from patients, see Guideline for Hospital Environmental Control: Housekeeping Services and Waste Disposal or *Isolation Techniques for Use in Hospitals* when applicable.

30 minutes and sterilization in 10 hours if the objects are cleaned until they are relatively free of organic matter. Gloves should be worn when using chemical disinfectants to prevent skin reactions, especially rashes. A new formulation, 6% stabilized hydrogen peroxide, does not appear to cause significant skin rashes and can achieve high-level disinfection in 30 minutes and sterilization in 6 hours. Objects disinfected with liquid chemicals must be rinsed in *sterile* water (or water containing at least 10 mg/liter free residual chlorine, e.g., a fresh 1:5000 dilution of a household bleach that is 5.25% hypochlorite solution) to remove possibly toxic or irritating residues. Afterward, the objects should be handled using sterile gloves and towels and stored in protective wrappers to prevent recontamination.

RECOMMENDATIONS

1. **General Operation of the Central Services Department**
   a. No disposable object designed for sterile, single use should be resterilized. *Category I*
   b. Any object which should be sterile should not be used if its sterility is seriously questioned, e.g., its package is torn or its expiration date is exceeded. *Category I*
   c. Central services should operate to assure that soiled objects do not contaminate those that are clean. Thus, all contaminated objects should be received and decontaminated in one area and cleaned, disinfected, or sterilized elsewhere. These areas should be separate from those used to receive or store new, clean, or sterile objects. *Category I*
2. **Decontamination and Cleaning**
   All objects to be disinfected or sterilized should be thoroughly cleaned to remove all blood, tissue, food, and other residue. If necessary, they should be decontaminated before or during cleaning. *Category I*
3. **Indications for Sterilization or High-level Disinfection**
   a. Patient-care equipment that enters normally sterile tissue or the vascular system, or through which blood flows, should be sterile. *Category I*
   b. Laparoscopes and other scopes that enter the peritoneal cavity should be subjected to a sterilization procedure before each use; if this is not feasible, they should receive high-level disinfection. *Category I*
   c. Endoscopes and respiratory therapy equipment that touch mucous membranes should be subjected to a sterilization procedure before each use; if this is not feasible, they should receive high-level disinfection. *Category I*
4. **Methods of Sterilization and Disinfection**
   a. Whenever sterilization is required, a steam sterilizer should be used unless the object to be sterilized is damageable by heat, pressure, or moisture or is not otherwise amenable to steam sterilization. *Category I*
   b. Many reusable patient-care objects can be disinfected or sterilized by the methods found in Table 2. *Category II*
5. **Method of Processing, Depending on Contamination**
   a. Patient-care equipment contaminated with blood from a patient known or suspected to be infected with hepatitis B virus should be sterilized; if this is not feasible, it should receive high-level disinfection. *Category I*
   b. Most environmental surfaces contaminated with blood from a patient known to be infected with hepatitis B virus should be cleaned with a solution of household bleach (e.g., a 1/10 dilution of a household bleach that is 5.25% hypochlorite solution) because such solutions have good activity against this virus. Hypochlorite can corrode metal and should be rinsed off. Other high-level disinfectants may be used if hypochlorite is not acceptable. *Category II*
   c. Other patient-care and environmental objects that are potentially contaminated with virulent microorganisms should be processed according to the manual *Isolation Techniques for Use in Hospitals (1). Category I*
6. **Storage**
   Sterile packs should be stored no longer than the safe storage time listed in Table 3. The pack must be considered to be contaminated if the wrap is damaged or has been wet. *Category I*
7. **Steam Sterilizers**
   a. Steam sterilizers should be monitored at least once a week with commercial preparations of spores of *Bacillus stearothermophilus*. *Category II*
   b. 1) Every load should be monitored with a spore test if it contains implantable objects. These implantable objects should not be used until the spore test is found to be negative (at 48 hours). *Category II*
      2) Implantable objects should not be sterilized by "flash" steam sterilization. *Category I*
8. **Ethylene Oxide Sterilizers**
   a. Ethylene oxide sterilization should be limited to objects that must be sterilized but can be damaged by heat, pressure, or moisture. *Category I*
   b. Ethylene oxide sterilizers should be monitored at least once a week with commercial preparations of spores of *Bacillus subtilis*. *Category I*

Table 2. Methods of Sterilization and Disinfection

	Sterilization		Disinfection	
			High-level	Low-level
	Will enter tissue or vascular system or blood will flow through		Will come in contact with mucous membranes but not enter tissue or vascular system	Will not come in contact with mucous membranes or skin that is not intact
Object	Procedure	Exposure Time (hr)	Procedure (Exposure Time ≥10 to 30 min)[a]	Procedure (Exposure Time ≤10 min)
Smooth, hard-surface	A	mfr. rec.	D	J
	B	mfr. rec.	E	L
	C	10	F	M
	D	18	G	N
	E	6	H	P
			I	
			J	
			Q	
Rubber tubing and catheters[b]	A	mfr. rec.	E	
	B	mfr. rec.	F	
	E	6	H	
			I	
			Q	
Polyethylene tubing and catheters[b,c]	A	mfr. rec.	D	
	B	mfr. rec.	E	
	C	10	F	
	D	18	H	
	E	6	I	
			J	
			Q	
Lensed instruments	B	mfr. rec.	E	
	C	10	Q	
	E	6		
Thermometers (oral & rectal)[d]	B	mfr. rec.	K	
	C	10		
	D	18		
	E	6		
Hinged instruments	A	mfr. rec.		
	B	mfr. rec.		
	C	10		
	E	6		

Key

A Heat sterilization including steam or hot air (see manufacturer's recommendations)
B Ethylene oxide gas (for time, see manufacturer's recommendations)
C Glutaraldehyde (2%)
D Formaldehyde (8%)-alcohol (70%) solution (corrosion inhibitor needed if formulated in hospital)
E 6% stabilized hydrogen peroxide (will corrode copper, zinc, and brass)
F Wet pasteurization at 75° C for 30 minutes after detergent cleaning
G Sodium hypochlorite (1000 ppm available chlorine) (will corrode metal instruments)
H Phenolic solutions (3% aqueous solution of concentrate)
I Iodophor. Use only a product approved for disinfection by the Environmental Protection Agency (EPA), and follow the product label for use dilution.
J Ethyl or isopropyl alcohol (70%-90%)
K Ethyl alcohol (70%-90%)
L Sodium hypochlorite (100 ppm available chlorine)
M Phenolic germicidal detergent solution
N Iodophor germicidal detergent
P Quaternary ammonium germicidal detergent solution
Q Glutaraldehyde (a 2% solution has been customary for high-level disinfection and has been shown to be effective for high-level disinfection of respiratory therapy tubing by in-use testing. A glutaraldehyde-phenate formulation also has been shown to be effective for high-level disinfection of respiratory therapy tubing at a glutaraldehyde concentration of 0.13%.[3]. Caution should be exercised with all glutaraldehyde formulations when further in-use dilution is anticipated [4]).

Notes

[a] The longer the exposure to a disinfectant, the more likely it is that all bacteria will be eliminated. Ten minutes' exposure may not be adequate to disinfect many objects, especially those that are difficult to clean because they have narrow channels or other areas that can harbor organic material and bacteria.
[b] Tubing must be completely filled for disinfection.
[c] Thermostability should be investigated when indicated.
[d] Do not mix rectal and oral thermometers at any stage of handling or processing.

Table 3. Safe Storage Times For Sterile Packs

Wrapping	Duration of Sterility[a]	
	In Closed Cabinet	On Open Shelves
Single-wrapped muslin (two layers)[b]	1 week	2 days
Double-wrapped muslin (each two layers)	7 weeks	3 weeks
Single-wrapped two-way crepe paper (single layer)	At least 8 weeks	3 weeks
Tightly woven untreated pima cotton (single layer) over single-wrapped muslin (two layers)	–	8 weeks
Two-way crepe paper (single layer) over single-wrapped muslin (two layers)	–	10 weeks
Single-wrapped muslin (two layers) sealed in 3 mil polyethylene	–	At least 9 months
Heat-sealed, paper transparent plastic pouches	–	At least 1 year

[a] Sterility was checked daily for the first week of storage and weekly thereafter.
[b] Single-wrapped muslin is not recommended because it is easily penetrated by contamination, especially moist contamination.

Augmented, with permission, from *Hospitals, J.A.H.A.*, by the American Hospital Association, copyright October 16, 1974, Volume 48, no. 20.

c. Every load should be monitored if it contains implantable objects. These implantable objects should not be used until the spore test is found to be negative (at 48 hours). *Category II*

9. Dry-Heat Sterilizers

a. Dry-heat sterilizers should be monitored at least once a month with commercial preparations of spores of *Bacillus subtilis* that are intended to monitor dry heat. *Category II*

b. Powders and anhydrous oils that must be sterilized should be sterilized by dry heat. *Category II*

10. Positive Spore Tests

a. If spores are not killed in *routine* spore tests, the sterilizer should immediately be checked for proper use and function; objects, other than implantable objects, do not need to be recalled for a positive spore test unless the sterilizer or its use is defective. *Category II*

b. If spore tests remain positive after proper use of the sterilizer is documented, its use should be discontinued and it should be serviced. *Category I*

11. Chemical Indicators

Chemical indicators showing that a package has been through a cycle in a sterilizer should be attached to the outside of each package sterilized. *Category I*

12. Preventive Maintenance

Equipment used for disinfection or sterilization should be scheduled for preventive maintenance routinely, according to the manufacturers' instructions. *Category I*

REFERENCES

1. Center for Disease Control. Isolation techniques for use in hospitals. 2nd ed. Washington, D.C. U.S. Government Printing Office, 1975. (DHEW publication no. [CDC] 78-8314)

2. Center for Disease Control. Recommendations for initial management of suspected or confirmed cases of Lassa fever. Morbid Mortal Weekly Rep 1980; 28(52suppl):1S-12S.

3. Townsend TR, Wee S, Koblin B. An efficacy evaluation of a synergized glutaraldehyde-phenate solution in disinfecting respiratory therapy equipment contaminated during patient use. Infection Control 1982;3:240-4

4. Bagenni RA, Marsik FJ, Kellogg VA, Hyler DL, Groschel DHM. In-use testing of four glutaraldehyde disinfectants in the ultrasonic washer. Respiratory Care 1981;26:1255-61.

FURTHER READING

American Hospital Association American Society for Hospital Central Service Personnel. Guidelines for the hospital central service department. Chicago. American Hospital Association, 1978.

Block SS, ed. Disinfection, sterilization and preservation. 2nd ed. Philadelphia: Lea and Febiger, 1977

Center for Disease Control. Decontamination of CPR training mannequins. Morbid Mortal Weekly Rep 1978;27:132,138.

Association for the Advancement of Medical Instrumentation. Good hospital practice: steam sterilization and sterility assurance. Arlington, Va.: Association for the Advancement of Medical Instrumentation, 1980.

Perkins JJ. Principles and methods of sterilization in health sciences. 2nd ed. Springfield, Ill., Charles C. Thomas, 1969

The Commonwealth of Massachusetts
Executive Office of Human Services
Department of Public Health
150 Tremont Street
Boston 02111

Bailus Walker, Jr., Ph.D., M.P.H.
COMMISSIONER

AIDS/Acquired Immune Deficiency Syndrome

Residential Treatment Policy

Epidemiologic studies show that AIDS is transmitted primarily via sexual contact or blood to blood contact. Researchers state that casual transmission of the virus has not occurred in close family environments. Since there is no evidence of casual transmission by sitting near, living in the same household, or caring for an individual with AIDS, the following guidelines are recommended by the Governor's Task Force for implementation in residential treatment programs and outpatient settings throughout the Commonwealth.

1. All patients diagnosed as having AIDS or with clinical evidence of infection with the AIDS associated virus, Human Immunodeficiency Virus (HIV), receiving medical attention are able to be admitted to residential treatment programs and attend outpatient clinics.

   A. It is assumed that individuals with AIDS can be served in existing service and treatment residential facilities and that their diagnosis of AIDS does not pose any special considerations in terms of physical facility requirements. In some unusual circumstances, however, as documented by medical and senior administrative staff, an individual may exhibit exceptional behavior that poses a theoretical risk to other residents or staff. Such behavior would consist of engaging in sexual activity with other residents of the facility, using parenteral drugs, frequent incontinence and public defecation.

      Those residents whose behavior is determined to be unmanageable should be placed in an appropriate setting. If an appropriate setting cannot be identified, the central office of the appropriate state agency should be notified.

   B. Patients with AIDS or with clinical evidence of infection with the AIDS associated virus, (HIV), who are too ill to receive treatment in a residential program or attend an outpatient clinic should have an alternative treatment in an appropriate medical or hospital setting.

2. The physician responsible for the care of the client is the primary manager of the client diagnosed as having AIDS or clinical evidence of infection with the AIDS associated virus (HIV).

   A. The physician responsible for the care of the client is responsible for reporting cases of AIDS to the Massachusetts Department of Public Health's Division of Communicable Disease.

   B. Only persons with an absolute need to know should have medical knowledge of a particular client. In individual situations, this might include one or more of the following:

      - Parent or Guardian
      - Administrator
      - Staff involved directly in the care of the client
      - Counselor
      - Orderly

   C. Notification should be by a process that would maximally assist patient confidentiality. This process should be initiated by the person's physician and communicated directly to the program administrator.

   D. If the program administrator believes that a patient with AIDS or clinical evidence of infection with the AIDS associated virus, (HIV), has evidence of conditions described in 1 A or B, then the administrator can request that the managing physician refer the patient to an appropriate medical or hospital setting for his/her treatment.

   E. If the administrator and the managing physician are in conflict, consultation is available from the Department of Public Health for review by an appointed physician who would determine the appropriateness of admission to a program.

3. Since the patient with AIDS or ARC has a somewhat greater risk of encountering infections in a residential program, the patient should be excluded from a program if there is an outbreak of a threatening communicable disease (see Attachment A) such as hepatitis, until he/she is properly treated and/or the outbreak has no longer become a threat to the client.

4. Kitchen and bathroom facilities may be shared with others. Regular sanitary practices in any household will prevent growth of fungi and bacteria that may potentially cause illness to immunocompromised people. Dishes and utensils may be shared with others provided they are washed in hot soapy water. Towels and wash cloths should be laundered before they are used by others. Toothbrushes and razors should not be shared.

5. Testing for HIV antibody is not recommended for any purposes other than to assist managing physicians in a highly selected set of clinical decisions. Results of HIV antibody tests are confidential and should only be reported to other health care agents with an absolute need to know.

6. Blood or any other body fluids including vomitus and fecal or urinary incontinence in any resident should be treated with precautions. Gloves should be worn when cleaning up any body fluids.

   A. These spills should be disinfected with bleach (one part bleach to ten parts water), or another disinfectant, by pouring the solution around the perimeter of the spill.

   B. All disposable materials, including gloves, should be discarded into a plastic bag. The mop should also be disinfected with the bleach solution described above.

   C. Persons involved in the clean-up should wash their hands afterwards.

7. In-service education for all residential and outpatient treatment staff should ensure that proper medical and current information about AIDS and clinical evidence of infection with the AIDS associated virus, (HIV), is available.

Revised September 1986

EMPLOYEE RELATIONS

MEMORANDUM

Michael S. Dukakis
Governor

Frank Keefe
Secretary, Admin. & Fin.

Daniel J. Sullivan
Director

THE COMMONWEALTH OF MASSACHUSETTS
OFFICE OF EMPLOYEE RELATIONS

PLEASE POST OER MEMORANDUM 86-1 PLEASE POST

To: All Cabinet Secretaries and Agency Heads

From: Daniel J. Sullivan, Director

Subject: Commonwealth of Massachusetts Employment and Procedures Policy on HTLV-III Infection (A.I.D.S.) in the Workplace

Date: February 28, 1986

1.0 Statement of Purpose and Scope

This memorandum establishes the policy of the Commonwealth for dealing with employees who have AIDS or who are infected with HTLV-III the virus which causes AIDS and AIDS Related Complex (ARC). Its purposes are the protection of the right of state employees who have AIDS to continued employment and the protection of rights of citizens of the Commonwealth who have AIDS to continued receipt of services. The Commonwealth of Massachusetts also recognizes its obligation as an employer to provide not only an objectively safe work environment for all employees and the public at large but also an environment where employees and their clients do not have fears for their health and safety.

This memorandum also establishes procedures to effectuate the above policy.

The policy and procedures follow a series of discussions with unions and associations representing state employees regarding the concerns of their memberships about AIDS.

The policy and procedures are applicable to all bargaining unit employees of the Executive Branch excluding only employees of the constitutional offices and those within the jurisdiction of the Board of Regents of Higher Education.

2.0 Policy

The Commonwealth of Massachusetts recognizes that employees with life-threatening illnesses, including, but not limited to, cancer, heart disease, and AIDS may wish to continue to work. As long as employees are able to meet acceptable performance standards, and medical evidence indicates that their condition is not a threat

to themselves or others, employees shall be assured of continued employment. Federal and State laws also mandate, pursuant to the laws protecting disabled individuals, that those individuals not be discriminated against on the basis of their handicaps, and that if it becomes necessary, some reasonable accommodations be made to enable qualified individuals to continue to work.

3.0 Training and Education

Medical studies show that Acquired Immune Deficiency Syndrome (hereinafter AIDS) is transmitted via sexual contact or blood to blood contact. To date, there is no record of transmission of the AIDS associated virus (HTLV-III) to co-workers, clients or consumers in offices, schools, factories, construction sites or other work-places. Nor is there evidence of casual transmission by sitting near, working in the same office, sharing the same water fountain, telephones, toilets, eating facilities or office equipment with a person infected with HTLV-III.

Many of the problems which arise in the workplace when employees are confronted with a fellow employee who suffers a life-threatening illness like AIDS are caused by ignorance about the disease and misunderstanding of the ways in which it is transmitted. The only means of combatting this fear is education. Managers should make a concerted effort to educate themselves as to the facts regarding the HTLV-III virus and how it is and is not transmitted and, further, should make the same effort to educate their employees.

Managers should be sensitive and responsive to co-workers' concerns, and emphasize employee education, but no special consideration should be given beyond normal transfer request for employees who feel threatened by a co-worker's having HTLV-III infection.

Employees with HTLV-III infection and other life threatening illnesses should seek assistance through Employees Assistance Plans, established community support groups, or Department of Public Health (DPH) referral for medical treatment, counseling services, legal assistance, or social services.

Consistent with this concern for employees with life-threatening illnesses, the Commonwealth offers the following range of resources for AIDS-related illnesses available through the Department of Public Health's Resource Office and the State Laboratory Institute:

- Management and employee education and information on terminal illness and specific life-threatening illnesses.
- Referral to agencies and organizations which offer supportive services for life-threatening illnesses.
- Resources regarding benefit consultation to assist employees in effectively managing health, leave and other benefits.

4.0 Confidentiality

Employers should always remember that an employee's health condition is personal and confidential. Personnel and medical files or information about employees are exempt from public disclosure by M.G.L. c. 4, section 7(26). In addition, information relating to a specifically named individual, the disclosure of which would constitute an unwarranted invasion of personal privacy, is exempt. Thus, special precautions should be taken to protect such information regarding an employee's health condition to prevent instances of disclosure that may invade the personal privacy of employees. Only those managers with a clear need to know should be informed of an employee's health condition, particularly if it relates to the AIDS infection status of an employee. Request for information by union representatives should be referred to the Office of Employee Relations for appropriate action.

5.0 Policies and Procedures Applicable to Particular Occupations

The Department of Public Health (DPH) in conjunction with the Governor's Task Force on AIDS and the Public Health Council has developed and issued policies on various areas of specific concern. The Centers for Disease Control of the U.S. Public Health Service has also issued guidelines relating to health care, personal service, food service, and other workers. Copies of all of these policies may be obtained through the Office of Human Resources of the DPH.

The following policies and procedures have been issued by the DPH:

5.1 Physicians Handbook - Guidance for practitioners in the diagnosis, treatment and care of AIDS patients.

5.2 School Attendance Policy - Issued in conjunction with Department of Education. Mandates that school age children with AIDS be educated in the public school - absent other considerations which for the child's safety or that of others would limit the AIDS child's attendance.

5.3 Day Care Policy - Children between ages of 0-4 who have AIDS or show signs of infection with HTLV-III may be cared for in group settings only if the caregiver can establish that it can keep the infected child out of contact with other children. Policy includes procedures for caring for a child infected with HTLV-III.

5.4 Policy for Food Establishment Workers - Since the AIDS virus is not a foodborne or airborne virus, infection with the virus is not a reason to keep a foodhandler from his or her work. DPH Retail Food Establishment Regulations and Communicable Disease Regulations contain adequate protection for food handlers and customers.

5.5 Residential Treatment Policy - Applies to residential and outpatient treatment facilities, particulary for substance abuse treatment. Establishes that many AIDS patients with substance abuse problems may be treated in residential facilities, but that for some others, transfer to a hospital or medical setting may be more appropriate. Also includes sanitary and other procedures to be followed when caring for a client with AIDS.

5.6 Dental Treatment Policy - As long as standard infection control procedures are in effect and are followed, individuals with AIDS and HTLV-III infection can safely be treated in the dentist's office. Includes standard preventative measures recommended to eliminate any theoretical risk of transmission of HTLV-III virus during dental treatment.

5.7 Hospital Procedures - Recommendations for patient care, infection control, laboratory procedures, personnel management (including pregnant personnel), employees with AIDS or HTLV-III infection, outpatient care, and public relations.

6.0 Testing - Although there is no specific blood test for AIDS there is an antibody test which, if positive, indicates exposure to the virus at some earlier time. Because a positive test is more likely to reflect exposure from an activity outside the workplace, and because this information should be confidential and sought only with full understanding of its implications, testing should not be routine. However, in followup of specific employment-related exposures of concern, the employee should have an informed choice and access to testing for the antibody.

7.0 Personnel Practices - The policies and procedures necessary to guide managers in assisting employees with life threatening illness are already in place in the Commonwealth. A compilation of these personnel policies including contractual obligations, medical leave, disability, employment of handicapped workers, including reasonable accomodations, confidentiality of information, and other policies which might impact on the employment of a person with HTLV-III infectivity and life threatening illnesses is available through the Commonwealth's Office of Employee Relations. Individuals with HTLV-III infection and other life threatening illnesses will be treated equally under these policies with individuals who are suffering from other handicapping conditions. All employees should be made aware of these policies and any special interpretations which might have been made of them.

The Commonwealth of Massachusetts
Executive Office of Human Services
Department of Public Health
150 Tremont Street
Boston 02111

Bailus Walker, Jr., Ph.D., M.P.H.
COMMISSIONER

Acquired Immune Deficiency Syndrome (A.I.D.S.) and Long Term Care Facilities

Acquired Immune Deficiency Syndrome (AIDS) is currently causing considerable concern throughout the United States. This concern is growing more and more every day as the number of cases continues to increase. The impact that this disease is having in all phases of health care delivery is evident.

AIDS is a disease that affects the human immune system rendering the body unable to fight off infection. A virus, known as HIV (Human Immunodeficiency Virus) has been identified as the cause of AIDS. This virus is not highly contagious and requires intimate contact for transmission. While a small number of AIDS cases have been caused by transfusion of infected blood or use of certain blood products, this mode of transmission has been virtually eliminated through blood donor screening and by manufacturing processes that inactivate the virus. The primary avenues of transmission for AIDS remain sexual contact with an infected person and the sharing of blood-contaminated needles by illicit drug users.

Scientists have developed a blood test to detect the presence of antibody to HIV. The presence of this antibody does not mean that a person has AIDS or that a person necessarily will develop AIDS; it only indicates that a person has been exposed to the virus and has developed antibody to it. However, because some antibody-positive people may be carriers of the virus, the antibody test is now used to screen blood donors for exposure to the virus. In addition, doctors may use the antibody test in certain clinical circumstances. Results of this test are confidential.

AIDS is not spread by casual contact. It cannot be contracted by sitting next to someone with AIDS, by breathing the same air, sharing a meal, or using the same rest room facilities.

The following recommendations have been developed to assist caretakers of people with AIDS in Long Term Care Facilities.

ADMISSION CRITERIA

Admission of people with AIDS to long term care facilities must be evaluated carefully for appropriate level of care. Admission to LTC must be in compliance with 105 CMR 150.003 (D), (3), (b) which states in part that

"individuals suffering from contagious diseases in a communicable form that might endanger the health of other residents or employees" may be restricted from admission. Normal activities in the LTC setting will not cause endangerment to either caretakers or other residents, providing that the resident is not presenting with extensive open lesions which either have serous or sero-sanginous drainage which cannot be contained with dressing material.

People with AIDS in the Commonwealth of Massachusetts are specifically identified as "handicapped" by the Massachusetts Commission Against Discrimination. As such, the LTC facility is bound by law and regulation to provide access and services G.L.C. 272 Sec. 92 A and 98, 105 CMR 150.003 (A) (1).

CONFIDENTIALITY OF THE PERSON WITH AIDS

Because of the publicity that AIDS has received, special care needs to be taken to preserve the dignity and confidentiality of people with AIDS at these times. Incumbent with the need for confidentiality of people with AIDS is the need to ensure appropriate precautions to prevent the spread of the disease. The procedure that ensures that both the caretaker and the resident are protected is "BLOOD/BODY FLUID PRECAUTIONS" as recommended in the CDC Guideline for Isolation Precautions in Hospitals. The precautions, but not the diagnosis should be clearly identified. Specimens being sent to the laboratory shall be labeled "BLOOD/BODY FLUID PRECAUTIONS." AIDS, as with other viral infections (e.g. hepatitis B), may be in the asymptomatic form or unrecognizable; therefore, blood and body fluids from any resident should be handled with caution.

RESIDENT CARE PRECAUTIONS

1. A private room is not routinely necessary for the care of a person with AIDS. A private room is recommended for residents who are unable to maintains normal hygiene (e.g. those with profuse diarrhea, fecal incontinence, or altered behavior due to central nervous system infections,) and these residents should have appropriate supervision when out of the room. 105 CMR 151.330 addresses the provision of "Special Care Room."

2. To obviate concerns about mouth-to-mouth respiration, portable pulmonary resuscitation equipment, e.g., a disposable ambu-bag with a disposable mask, and/or s-tube airway, should be immediately available for use on AIDS residents with AIDS.

3. Masks are not routinely necessary for the care of a person with AIDS. The use of masks is recommended for caretakers who have direct, sustained contact with a resident who is coughing extensively or a resident who is intubated and being suctioned.

4. The use of gowns is routinely recommended only if soiling of clothing with infectious fluids is anticipated. This procedure applies not only to the care of residents with AIDS but also to those with other potentially infectious illnesses that are transmitted by blood or body fluids.

5. The use of gloves is recommended if contact with blood or body fluids, secretions, or excretions is anticipated. The gloves need not be sterile. This recommendation is particularly important for caretakers who have cuts or abrasions on their hands.

6. Hands must be washed routinely when caring for people with AIDS, especially when they are contaminated with blood, body fluids, secretions, or excretions. This precaution should be observed regardless of the use of gloves.

7. Needles and syringes should be disposable and should be disposed of in rigid, puncture-resistant containers. Needles should not be recapped and should not be purposely bent or broken by hand, since accidental needle puncture may occur. The use of needle-cutting devices is not recommended.

8. Extraordinary care should be taken to avoid accidental wounds from needles or other sharp instruments. Parenteral injection and blood drawing should be planned to keep these procedures at a minimum; they should be carried out by experienced personnel.

9. Blood and other specimens should be labeled prominently with a warning, i.e., "BLOOD/BODY FLUID PRECAUTIONS." The label should accompany the specimen through all phases of processing until ultimate disposal. If the outside of the specimen container is visibly contaminated with blood, it should be cleaned with a disinfectant, such as freshly prepared (once daily) 1:10 dilution of 5.25% sodium hypochlorite (household bleach) with water. All blood specimens should be placed in a second container, such as an impervious bag, for transport. AIDS, as with other viral infections that are transmitted by blood or body fluids (e.g. hepatitis B), may be in the asymptomatic form or unrecognized; therefore, blood and body fluids from any resident should be handled with caution.

10. Soiled linens and other laundry should be bagged, appropriately labeled or color-coded, and processed according to the existing policy regarding linens from the residents on isolation precautions. Compliance with 105 CMR 150.016 (C), (D), and (E) will provide sufficient protection in this area.

11. Nondisposable articles contaminated with blood or body fluids should be cleaned with a disinfectant before being bagged and labeled and sent to the central supply area for terminal decontamination and reprocessing. A suitable disinfectant should be used, such as a 1:10 dilution of 5.25% sodium hypochlorite (household bleach) with water as noted in Section 9.

    Disposable items should be incinerated or disposed of in accordance with policies for disposal of infectious waste. Additional precautions are not only unnecessary but may contribute to unwarranted fear of residents with AIDS. For example, it is unnecessary to incinerate linens, reusable gowns, or other reusable medical care equipment as well as to use unusual or inappropriate cleaning methods of environmental surfaces.

12. No special precautions for dishes are necessary; either reusable (washed in a dishwasher at 140 F.) or disposable dishes may be used.

13. People with AIDS who are being transported require no special precautions other than "BLOOD/BODY FLUID PRECAUTIONS." Residents with infections requiring isolation precautions should be managed according to existing policy for Isolation Techniques. Personnel in the area to which the resident is to be taken should be notified of precautions to be used prior to the resident's arrival in that area.

14. Blood spills should be cleaned up promptly with a solution of 5.25% sodium hypochlorite, diluted 1:10 water (prepared daily).

ACCIDENTAL EXPOSURES OF CARETAKERS TO HIV

An accidental exposure is defined as significant by the same criteria used for other blood bourne viruses (e.g. hepatitis B). These include accidental parenteral inoculation with blood or blood-contaminated instruments, such as needles or other sharp instruments, and mucous membrane or open skin lesion contact with blood or body fluids from residents with AIDS. Extraordinary care should, of course, be taken to avoid such accidental exposures. Current research documents that such accidental exposures have a low incidence of active infection. The risk may be further reduced by empiric attempts to "wash out" the contaminated blood or fluids by inducing back-bleeding immediately. Such accidental exposures do occasionally occur, however, and therefore employees with such exposures should report promptly to the employee health office or to their supervisor.

If a caretaker has a parenteral exposure (e.g. needlestick or cut) or mucous membrane exposure (e.g. splash to the eye or mouth) to blood or other body fluids, the source patient should be assessed clinically and epidemiologically to determine the likelihood of being an HIV carrier. If the assessment suggests that the source patient may be a carrier (HIV antibody positive), he or she should be asked to consent to serologic testing. If the source patient has AIDS or other evidence of HIV infection, has a positive antibody test, or declines testing, the health care worker should be evaluated clinically and serologically (HIV antibody) as soon as possible after the exposure.

If the initial test of the health care worker is negative, there should be retesting after six weeks and on a periodic basis thereafter (e.g. 3, 6, and 12 months following exposure) to determine whether seroconversion occurs as evidence of recent infection. During this follow-up period, especially the first 6-12 weeks when most infected persons are expected to seroconvert, exposed caretakers should receive counseling about the risk of infection and follow U.S. Public Health Service (PHS) recommendations for preventing transmission of AIDS.

If the source patient was negative or had no other evidence of HIV infection, no further follow-up of the health care worker is necessary for AIDS. In addition, after exposure to blood or body fluids it is important to assess the risks for hepatitis B as well. Please refer to appropriate hepatitis procedures for accidental exposure. If the source patient cannot be identified, decisions regarding appropriate follow-up should be individualized based on type of exposure and the likelihood that the source patient was infected.

The Commonwealth of Massachusetts
Executive Office of Human Services
Department of Public Health
150 Tremont Street
Boston 02111

Bailus Walker, Jr., Ph.D., M.P.H.
COMMISSIONER

RECOMMENDATIONS FOR CARE OF PEOPLE WITH AIDS IN THE COMMUNITY SETTING

Purpose

The intention of the Governor's Task Force on AIDS concerning the care of people with AIDS in the community is to establish standards:

1. to protect the community caregiver against risk of transmission of the AIDS associated virus;

2. to protect the susceptible AIDS patient from infections;

3. to inform the caregiver and other family members about the management of the person with AIDS;

4. to help the person with clinical AIDS lead as normal a life as possible.

Background

Acquired Immune Deficiency Syndrome (AIDS) is currently causing considerable concern throughout the United States. This concern is growing more and more every day as the number of cases continues to increase. The impact that this disease is having in all phases of health care delivery is evident.

AIDS is a disease that affects the human immune system rendering the body unable to fight off infection. A virus, known as HIV (Human Immunodeficiency Virus) has been identified as the cause of AIDS. This virus is not highly contagious and requires intimate contact for transmission. While a small number of AIDS cases have been caused by transfusion of infected blood or use of certain blood products, this mode of transmission has been virtually eliminated through blood donor screening and by manufacturing processes that inactivate the virus. The primary avenues of transmission for AIDS remain sexual contact with an infected person and the sharing of blood-contaminated needles by illicit drug users.

Scientists have developed a blood test to detect the presence of antibody to HIV. The presence of this antibody does not mean that a person has AIDS or that a person necessarily will develop AIDS; it only indicates that a person has been exposed to the virus and has developed antibody to it. However,

because some antibody-positive people may be carriers of the virus, the antibody test is now used to screen blood donors for exposure to the virus. In addition, doctors may use the antibody test in certain clinical circumstances. Results of this test are confidential.

AIDS is not spread by casual contact. It cannot be contracted by sitting next to someone with AIDS, by breathing the same air, sharing a meal, or using the same rest room facilities. The AIDS virus cannot multiply outside the body. Furthermore, the virus, once outside the body, decays in the environment and is readily destroyed during standard washing and sanitizing procedures. The virus has been insolated in several body fluids: blood and semen contain significant concentrations. The virus is also found, in smaller concentrations, in other body fluids such as tears, saliva and vaginal secretions. AIDS is primarily a blood borne, sexually transmitted disease.

The Centers for Disease Control has conducted research on health care providers who have cared for people with AIDS. To date, no health care providers, outside of a risk group, have developed AIDS. Among staff who have sustained a needle-sticking injury, a very small number have developed antibody.

This document is intended to address the major issues of care for people with AIDS in the community.

Physical Care of People with AIDS:

The personal, primary physician is the manager of care for the person who has been diagnosed as having AIDS or with clinical evidence of infection with AIDS associated virus, (HIV). Management includes acting as the "gate-keeper" for the person's ability to remain at home and in the community, as well as the coordination of community health services to optimally support the person in the home setting.

Community caregivers should themselves be in good health, free of symptoms of disease, such as fever, diarrhea, open wounds or yeast infections. This will prevent the person with AIDS from being exposed to a possible source of infection. People with AIDS have a weakened cellular immunity (ability to fight disease) and are vulnerable to infections. These recommendations are designed not only to protect the caregiver but also to protect the person with AIDS from these infections.

Patient Care Precautions:

1. WASH YOUR HANDS. Hand washing should be done before and after each contact with the person with AIDS. This not only protects the caregiver but also protects the person with AIDS from opportunistic infections. Hands should be kept away from mouth and face while working. Always wash hands before eating or touching the face.

2. Masks are not routinely necessary for the care of a person with AIDS. The use of masks is recommended for caregivers who have direct, sustained contact with AIDS patient who is coughing extensively or intubated and being suctioned.

Careful instruction should be given to the patient to use tissue when coughing or sneezing and to immediately dispose of the tissue in a plastic bag for disposal.

3. The use of gowns is routinely recommended only if soiling of clothing with infectious fluids is anticipated. This procedure applies not only to the care of a person with AIDS but also to those with other potentially infectious illnesses that are transmitted by blood or body fluids.

4. The use of gloves is recommended if contact with blood or body fluids, secretions, or excretions is anticipated. The gloves need not be sterile. This recommendation is particularly important for caregivers who have cuts or abrasions on their hands. Gloves do not need to be worn when handling clothing or other materials which have not been soiled. Gloves do not need to be worn to touch the person's intact skin (as for back rub).

5. Wound care should be done using precautions. If large amounts of body fluids are present, a gown should be worn to protect the caregiver from being soiled. Gloves are to be worn for procedures such as dressing changes. The person with AIDS should have his/her own scissors, forceps and other equipment which will be sterilized between uses and used only in their care. Contaminated disposable equipment and supplies should be disposed of in the usual double bagging method with both the inner and outer bags securely tied.

6. Needle precautions are to be observed at all times. Needles should not be bent after use. They should be placed in a puncture proof container (coffee can, thick plastic container). Needles should not be recapped after use as this is the single most common cause of "needle-stick" injuries. Extraordinary care should be taken to avoid accidental wounds from needles or other sharp instruments. Parenteral injection and blood drawing should be planned to keep these procedures at a minimum; they should be carried out by experienced personnel.

7. Blood and other specimens should be labeled as "Blood Precautions" or "Secretions/Excretions Precaution." If the outside of the specimen container is obviously contaminated, it should be wiped clean with a disinfectant bleach solution (1:10 dilution of 5.25% sodium hypochlorite (household bleach) with water). This bleach solution should be prepared daily.

8. No special precautions for dishes or utensils are necessary; either reusable (washed in a dishwasher at 140 F.) or disposable dishes may be used.

9. People with AIDS who are being transported require no special precautions other than "BLOOD/BODY FLUID PRECAUTIONS." Infections requiring isolation precautions should be managed according to the instructions of the managing physician.

Accidental Exposures of Caregivers to HIV - General Guidelines

An accidental exposure is defined as significant by the same criteria used for other blood borne viruses (e.g. hepatits B). These include accidental parenteral innoculation with blood or blood-contaminated instruments, such as needles or other sharp instruments, and mucous membrane or open skin lesion contact with blood or body fluids from people with AIDS. Extraordinary care should, of course, be taken to avoid such accidental exposures. Current research indicates that such accidental exposures have a low incidence of active infection. The risk may be further reduced by thorough attempts to "wash out" the contaminated blood or fluids by inducing back-bleeding immediately. Such accidental exposures do occasionally occur, however, and therefore caregivers with such exposures should report promptly to their health care provider.

If a caregiver has a parenteral exposure (e.g. needlestick or cut) or mucous membrane exposure (e.g. splash to the eye or mouth) to blood or other body fluids, the source patient should be assessed clinically and epidemiologically to determine the likelihood of being an HIV carrier. If the assessment suggests that the source patient may be a carrier (HIV antibody positive), he or she should be asked to consent to serologic testing. If the source patient has AIDS or other evidence of HIV infection, has a positive antibody test, or declines testing, the health care worker should be evaluated clinically and serologically (HIV antibody) as soon as possible after the exposure.

If the initial test of the health care worker is negative, there should be retesting after six weeks and on a periodic basis thereafter (e.g. 3, 6, and 12 months following exposure) to determine whether seroconversion occurs as evidence of recent infection. During this follow-up period, especially the first 6-12 weeks when most infected persons are expected to seroconvert, exposed caretakers should receive counseling about the risk of infection and follow U.S. Public Health Service (PHS) recommendations for preventing transmission of AIDS.

If the source patient was negative or had no other evidence of HIV infection, no further follow-up of the health care worker is necessary for AIDS. In addition, after exposure to blood or body fluid it is important to assess the risks for hepatitis B as well. Please refer to appropriate hepatitis procedures for accidental exposure. If the source patient cannot be identified, decisions regarding appropriate follow-up should be individualized based on type of exposure and the likelihood that the source patient was infected.

Standards for Care for Children with AIDS or Clinical Evidence of Infection with the AIDS Associated HIV

Socialization

The Guidelines for Caretakers of Children with AIDS or Infection with HIV are intended to assure that preschool children and the developmentally disabled are able to live as normal a life as possible while at the same time protecting against theoretical risk of transmission of AIDS in group settings for this age group.

Physicians of children diagnosed as having AIDS or with HIV infection will advise parents on the appropriateness of placement of the child in any social setting. Placement will depend on the level of development of the child, the ability of the setting to assure that standards established in these Guidelines are maintained, and the condition of the child with regard to open sores and lesions or any unusual behavior.

Play Activity

The level of activity for children with AIDS or clinical evidence of infection with AIDS associated virus, HIV, will depend on the child and his/her physical health. The children can usually limit their own activity depending on how they are feeling. Group play should be well supervised so that toys, food, bottles, anything in contact with body secretions are not shared. A cloth or tissue should be used to wipe off drools. Thorough hand washing should occur after handling saliva or other body fluids. This is the general hygienic principle recommended for handling all bodily secretions.

Hugging and Holding

Affection and cuddling are highly encouraged; kissing on the mouth should not be permitted to protect both the caregiver and the child, though there is no clinical evidence of transmitting the virus in this manner.

Feeding

Children with AIDS generally do not have a specific diet to follow. As with all children, a well-balanced nutritional intake should be encouraged to maintain strength and health. The utensils used by children with AIDS or clinical evidence of infection with the AIDS associated virus, HIV, should be washed thoroughly in hot sudsy water followed by thorough rinsing and drying. This is a general hygienic principle. Dishwashers may also be used. The sharing of utensils, cups, bottles, and food should not be permitted. Pacifiers should be sterilized daily by boiling in water. Hands should be washed well with soap and water prior to and after feeding infants and young children.

Bottle Feeding

Bottles should be cleaned with hot sudsy water followed by thorough rinsing and drying. Gloves should be worn if caregiver has a skin rash or a break in the skin such as a cut. Bottle-fed infants in general ,and especially whose with AIDS, should not be put to bed with a bottle of juice or milk because of increased opportunities for bacterial infection.

Diaper Care

Because children with AIDS are prone to other infections, hands should be washed thoroughly before and after changing diapers. Gloves should be worn when handling soiled diapers if there are any cuts or breaks in the skin. Again, this is a general hygienic principle. The AIDS virus is not transmitted by changing a diaper. Putting powder inside the gloves will make it easier to put them on and increases comfort. Disposable diapers should be placed in plastic bags and tied securely before being discarded. Toilet trained children should be supervised to ensure thorough hand washing after going to the bathroom.

Prevention of Skin Rashes

Since the child with AIDS has a weakened defense system, it is very important to keep the child's skin clean and intact. An intact skin surface is the body's first defense mechanism. The caregiver should provide regular baths, proper drying, and use of lotions to prevent dryness or irritations. All children should be protected from sun and wind burns. Vaseline on the skin in cold weather provides an effective shield. If the child with AIDS or any other child has a cold, his/her face and hands, if soiled with secretions, should be washed as necessary. Feet should be observed for irritations from shoes and possible skin allergies to shoes. In all infants, especially those with AIDS, nails should be kept short and cut straight to avoid infection, scratching, and ingrowing.

Housekeeping Chores

Surfaces of equipment or furniture which might be contaminated with blood, urine, feces, vomitus, or salvia should be cleaned thoroughly and disinfected with household bleach, one part to each ten parts water, or another disinfectant. Gloves should be worn when cleaning soiled areas. A separate sponge should be used for kitchen and bathroom spills. Hands should be washed thoroughly after cleaning a spill. Items that become soiled with body secretions such as towels, linens, clothing, and other personal items, such as diapers used during burping, should not be shared. Everything can be washed well in hot water and detergent. Chlorine bleach should be added if items are soiled with blood, urine, feces, or vomitus.

Prevention of Accidents and Illnesses

Prevention of infection is of prime importance for a child with an immune deficiency. Hand washing is the best way to protect both the child and caregiver. A health care provider should be consulted at the earliest sign of illness. These signs and symptoms could include red watery eyes, sticky eyelids, red or scaly skin, runny nose, fever, sore throat, cough, increased

tiredness, muscle aches, crankiness, change in appetite, inability to hold food, vomiting, persistent diarrhea, rashes and sores around the mouth. The child's health care provider should be contacted immediately if the child with AIDS is exposed to chicken pox or measles, or other childhood diseases.

Treating Common Accidents and Illneses

To monitor a child with AIDS or clinical evidence of infection with AIDS associated virus, HIV, who has a fever, a rectal thermometer is required. This thermometer should be cleaned with soap and water and stored in a separate container. Gloves should be worn if there is contact with any blood or secretions and the caregiver has cuts or breaks on his/her hands. If gloves are not available, hands must be washed thoroughly. The dressings or bandages should be discarded in a sealed plastic bag.

Prevention of Disease

The usual immunization schedule for children with AIDS or clinicl evidence of infection with the AIDS associated virus HIV will be altered. Immunizations containing live viruses such as polio virus, measles, mumps, and rubella may not be given and substitutions will be required. This is also true for other members of the household. Consult with your physician for these special immunizations.

Care of the Environment

1. DISINFECTANT: An inexpensive and effective disinfectant may be mixed at home using one part bleach to ten parts water (1 cup of bleach to 10 cups of water). This solution should be changed daily.

2. Any body fluid should be treated with care when cleaning. Gloves should be worn while cleaning up any body spill. The following procedure is safe and effective for use on any surface in the home:

    a. The area should be cleaned with paper towels and the soiled materials placed in a plastic bag.

    b. Wash the area with hot water and soap.

    c. Using the disinfectant solution, pour solution around the perimeter of the spill and wipe it thoroughly.

    d. Dispose of all materials, including gloves, into a plastic bag. If a mop is used for cleaning up, it should be soaked in a disinfectant solution.

    e. Persons involved in clean up should wash their hands thoroughly with soap and water.

3. Use plastic bags as liners for all waste receptacles, especially those that will be used for soiled tissues, dressings, bandages and gloves. Plastic bags should not be reused; close them tightly; tie securely; and discard.

4. Wash hands after using the toilet. It is important to keep bathrooms clean and to routinely clean them. Toilet seats and bathroom fixtures should be washed with hot water and soap and then wiped down with disinfectant solution. Mop the bathroom floor at least weekly and always after <u>any body spill</u>. DO NOT USE the same sponge or wash cloth in the kitchen that is used in the bathroom.

5. Gloves should be worn when handling bedpans and urinals. Urine and stool can be flushed down the toilet. Bedpans and urinals should be washed with hot water and soap and rinsed with disinfectant after each use.

6. Kitchens should be kept clean. Dishes may be circulated within the household for general use. They should be washed with hot water and soap between the use of ANY two people in the household. Allow to drain dry rather than wiping dry. Dishwashers may be used following the manufacturer's directions. The sponge or dish cloth should be used for dishes and washed on a regular basis.

7. Clothing, bed linens and towels should be washed in a washing machine using hot water, soap, and household bleach. Follow the direction on the bleach bottle to use the proper amount.

8. Personal hygiene items should never be shared in the household.

9. Cleaning of equipment associated with pets should be limited or avoided. People with AIDS should wear gloves if they must clean bird cages or litter boxes since these contain organisms that can cause infections.

January 1987